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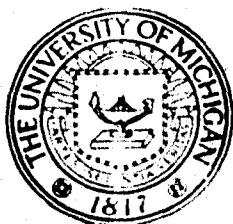
AD 615 368

*Surface Field Components for
a Perfectly Conducting Sphere*

by
J. A. DUCMANIS and
V. V. LIEPA

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March 1965



Scientific Report No. 3
Contract No. AF 19(628)-2374
Project 5625
Task 563502

Contract With: Air Force Cambridge Research Laboratories
Office of Aerospace Research
L. G. Hanscom Field
Bedford, Massachusetts 01731

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SURFACE FIELD COMPONENTS FOR A
PERFECTLY CONDUCTING SPHERE

by
J. A. Ducmenis and V. V. Liepa

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ABSTRACT

For a plane wave incident on a perfectly conducting sphere of radius a , the surface field components are expressible in terms of series of the Mie type. These have been evaluated on an IBM 7090 computer and results are presented for $\theta = 0(5)180^0$, where θ denotes the angular position on the surface, and $ka = 0.1(0.1)5.0(0.2)10.0$, where k is the propagation constant.

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INTRODUCTION

The increasing interest in sophisticated methods of controlling the scattering behavior of bodies using, for example, absorbers and reactive loading, has served to focus attention on the surface field, a knowledge of which is almost essential if these techniques are to be employed in anything near an optimum manner. Although the ultimate requirement is still, in general, the determination of the far field, it is now appreciated that an examination of the surface field can provide new insights into the scattering processes. An assumption about the currents induced on the surface of the body is often the basis for approximate techniques for cross section estimation, and the surface field is also the natural product of digital methods of far field computation involving the numerical solution of the integral equations (see, for example, Andreasen, 1965) or the point-by-point satisfaction of the boundary conditions (Mullin et al., 1965).

Studies of the surface field either by probe measurements (Senior, 1964) or by digital techniques have made it desirable to have some body whose field is known precisely and which can be used for calibration or checking purposes. The sphere is the natural candidate for this role. For plane wave incidence, an exact expression for the scattered field at all points of space is available in the form of an infinite series involving spherical Bessel and Legendre functions. The series has been quite extensively computed in the far zone, particularly for the back scattering direction (Hey et al., 1956; Bechtel, 1962), but curves showing the bistatic

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scattering in the E- and H-planes have also been given by King and Wu (1959) for 17 values of ka in the range 1.1 to 20. By comparison, however, the expressions for the surface field have received less attention, and it would appear that only plots for isolated values of ka have been obtained.

In the course of a recent investigation of reactive loading applied to a metallic sphere (Liepa and Senior, 1964), it was necessary to calculate the surface field components for a wide variety of ka and θ , where θ is the angular position on the sphere. The series were programmed for the IBM 7090 computer of The University of Michigan, and it seemed worthwhile to carry through the computation for a reasonably comprehensive set of values to permit a detailed numerical and conceptual picture of the surface field behavior. The tables presented here give both tangential components of the magnetic vector for $ka = 0, 1(0, 1)5, 0(0, 2)10, 0$ and $\theta = 0(5)180^{\circ}$, and required 10.5 minutes of machine time to compile.

EXPRESSIONS FOR THE SURFACE FIELD COMPONENTS

Consider a perfectly conducting sphere of radius a whose center is at the origin of a Cartesian coordinate system (x, y, z) . A plane electromagnetic wave is assumed incident in the direction of the negative z axis and since there is no loss of generality in taking its electric vector to lie in the x direction, we choose

$$\underline{E}^i = \hat{x} e^{ikz}, \quad \underline{H}^i = -\hat{y} Y e^{ikz} \quad (1)$$

where Y is the intrinsic admittance of free space and a time factor $e^{i\omega t}$ has been suppressed.

If we also introduce the spherical polar coordinates (r, θ, ϕ) such that

$$x = r \sin \theta \cos \phi, \quad y = r \sin \theta \sin \phi, \quad z = r \cos \theta$$

with $\theta = 0$ representing the back scattering direction and $\theta = \pi$ the forward one, expressions for the total (incident plus scattered) field can be obtained from the standard Mie solution. For the magnetic vector in particular we have, on the surface $r = a$,

$$H_r = 0$$

$$H_\theta = \frac{Y}{ka} \sin \phi \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} + \frac{i}{\xi_n(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) \right\} \quad (2)$$

$$H_\phi = \frac{Y}{ka} \cos \phi \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) + \frac{i}{\xi_n(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} \right\} \quad (3)$$

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(see, for example, Liepa and Senior, 1964), where

$$\xi_n(ka) = ka h_n^{(2)}(ka)$$

and $h_n^{(2)}(ka)$ is the spherical Hankel function of the second kind. The primes denote differentiation with respect to ka . $P_n^1(\cos \theta)$ is the Legendre function of degree n and order unity as defined, for example, by Stratton (1941).

The tangential components H_θ and H_ϕ are directly related to the surface current J via the equation

$$\underline{J} = \underline{\Gamma} \times \underline{H} ,$$

implying

$$J_\theta = -H_\phi , \quad J_\phi = H_\theta ,$$

and for convenience they are written as

$$H_\theta = Y \sin \phi T_1(\theta) ,$$

$$H_\phi = Y \sin \phi T_2(\theta) .$$

T_1 and T_2 are, of course, functions of ka as well as θ , but are independent of ϕ .

From equations (2) and (3), their expressions are

$$T_1(\theta) = \frac{i}{ka} \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} + \frac{i}{\xi_n(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) \right\} , \quad (4)$$

$$T_2(\theta) = \frac{1}{ka} \sum_{n=1}^{\infty} i^{n+1} \frac{2n+1}{n(n+1)} \left\{ \frac{1}{\xi_n'(ka)} \frac{\partial}{\partial \theta} P_n^1(\cos \theta) + \frac{i}{\xi_n(ka)} \frac{P_n^1(\cos \theta)}{\sin \theta} \right\} \quad (5)$$

and these are the functions that were computed.

COMPUTATION OF $T_1(\theta)$ AND $T_2(\theta)$

The series representations of T_1 and T_2 shown in equations (4) and (5) were programmed for The University of Michigan IBM 7090 computer. The procedure was quite straightforward. Because of the similarity of T_1 and T_2 , the terms in both series were evaluated within the same loop, and the series were terminated whenever the magnitudes of successive terms fell below 10^{-7} . With this criterion, the number of terms included was, in general, the same for T_1 and T_2 . It depended primarily on the value of ka and increased from 4 for $ka = 0.1$, through 9 and 17 for $ka = 1$ and 5 respectively, to 25 for $ka = 10$.

The evaluation of the spherical Hankel and Legendre functions was carried out using external subroutines which were originally prepared in connection with an investigation of reactive loading applied to a sphere. Although the present computation was limited to $ka \leq 10$, and required only the first 25 (or fewer) terms in the series, the subroutines are sufficient to produce at least five digit accuracy for n up to 44. The program is therefore capable of computing T_1 and T_2 for ka as large as (say) 20 with no appreciable modification.

A few comments about the two subroutines may be of interest. The function $\xi'_n(ka)$ was written as a sum of spherical Hankel functions in the form

$$\xi'_n(x) = \frac{1}{2n+1} \left\{ n h_{n-1}(x) - (n+1) h_{n+1}(x) \right\} + h_n(x),$$

and $h_n(x)$ was itself broken up into spherical Bessel functions of the first and

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second kinds:

$$h_n^{(2)}(x) = j_n(x) - i y_n(x) .$$

$j_n(x)$ was obtained by numerical integration of the finite integral expression

$$j_n(x) = \frac{\left(\frac{x}{2}\right)^n}{n!} \int_0^{\pi/2} \cos(x \sin \phi) \cos^{2n+1} \phi d\phi$$

(see, for example, Adams and Hippisley, 1947). The range of integration was subdivided into $40 + 2n$ intervals, and to judge from spot checks, the resulting evaluations were accurate to six significant figures for $n \leq 20$, and to five for $20 \leq n \leq 44$.

The spherical Bessel functions of the second kind were determined from the finite series expansion

$$y_n(x) = \frac{(-1)^{n+1}}{x} \left\{ \cos\left(x + \frac{n\pi}{2}\right) \sum_{r=0}^{\frac{n}{2}} \frac{(-1)^r (n+2r)!}{(2r)! (n-2r)! (2x)^{2r}} \right.$$

$$\left. - \sin\left(x + \frac{n\pi}{2}\right) \sum_{r=0}^{\frac{n-1}{2}} \frac{(-1)^r (n+2r+1)!}{(2r+1)! (n-2r-1)! (2x)^{2r+1}} \right\}$$

(Watson, 1948), giving seven digit accuracy for $n \leq 20$, and five or better to $n=44$.

The most direct method of computing the Legendre function factors is to use the recurrence relations

$$P_{n+1}^1(\cos \theta) = \frac{2n+1}{n} \cos \theta P_n^1(\cos \theta) - \frac{n+1}{n} P_{n-1}^1(\cos \theta) \quad (6)$$

$$\frac{\partial}{\partial \theta} P_n^1(\cos \theta) = n \cos \theta \frac{P_n^1(\cos \theta)}{\sin \theta} - (n+1) \frac{P_{n-1}^1(\cos \theta)}{\sin \theta} \quad (7)$$

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but because of the loss of accuracy accompanying their repeated use, equations (6) and (7) were employed only for the generation of functions for which $n > 32$. For $n < 32$, Tallqvist (1938) has given the expansion of $P_n^1(\cos\theta)$ in terms of cosines of multiple angles, and since

$$P_n^1(\cos\theta) = \frac{\partial}{\partial\theta} P_n(\cos\theta),$$

direct differentiation leads to a comparable expansion of $P_n^1(\cos\theta)$ in terms of sines of multiple angles. This was used to compute $P_n^1(\cos\theta)$ for $n < 32$, with $\frac{\partial}{\partial\theta} P_n^1(\cos\theta)$ determined from equation (7). The values of the two Legendre functions obtained in this manner are believed accurate to seven significant figures for $0 < n < 32$, and to five significant figures for $32 < n < 50$.

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GRAPHS AND TABLES

The functions $T_1(\theta)$ and $T_2(\theta)$ were computed for $ka=0, 1(0, 1)5, 0(0, 2)10, 0$ and for $0 \leq \theta \leq 180^\circ$ in increments of 5° , and in the following tables the real and imaginary parts are presented along with the magnitudes and arguments. The arguments are given in degrees and since these are, of course, principal values, the addition (or subtraction) of integer multiples of 360° may be necessary to convert them into physically-meaningful phase angles. In this connection we note that the incident field was chosen to have zero phase in the plane of the shadow boundary. We also remark that for $ka=0$, $T_1(\theta) = -\frac{3}{2} \cos \theta$ and $T_2(\theta) = -\frac{3}{2}$.

No detailed study of the accuracy of the tabulated values has been carried out, but from spot checks using a hand computer and standard tabulations of the Hankel and Legendre functions, it is believed that the results are accurate to all of the decimal places shown.

To illustrate the nature of the surface field components, the amplitudes and phases of $T_1(\theta)$ and $T_2(\theta)$ are plotted as functions of θ for $ka=0.1, 1.0, 5.0$ and 10.0 in Figures 1 through 4 respectively. The values were taken directly from the tables except for the addition of appropriate multiples of 360° to the listed arguments in accordance with the known physical behavior of the field.

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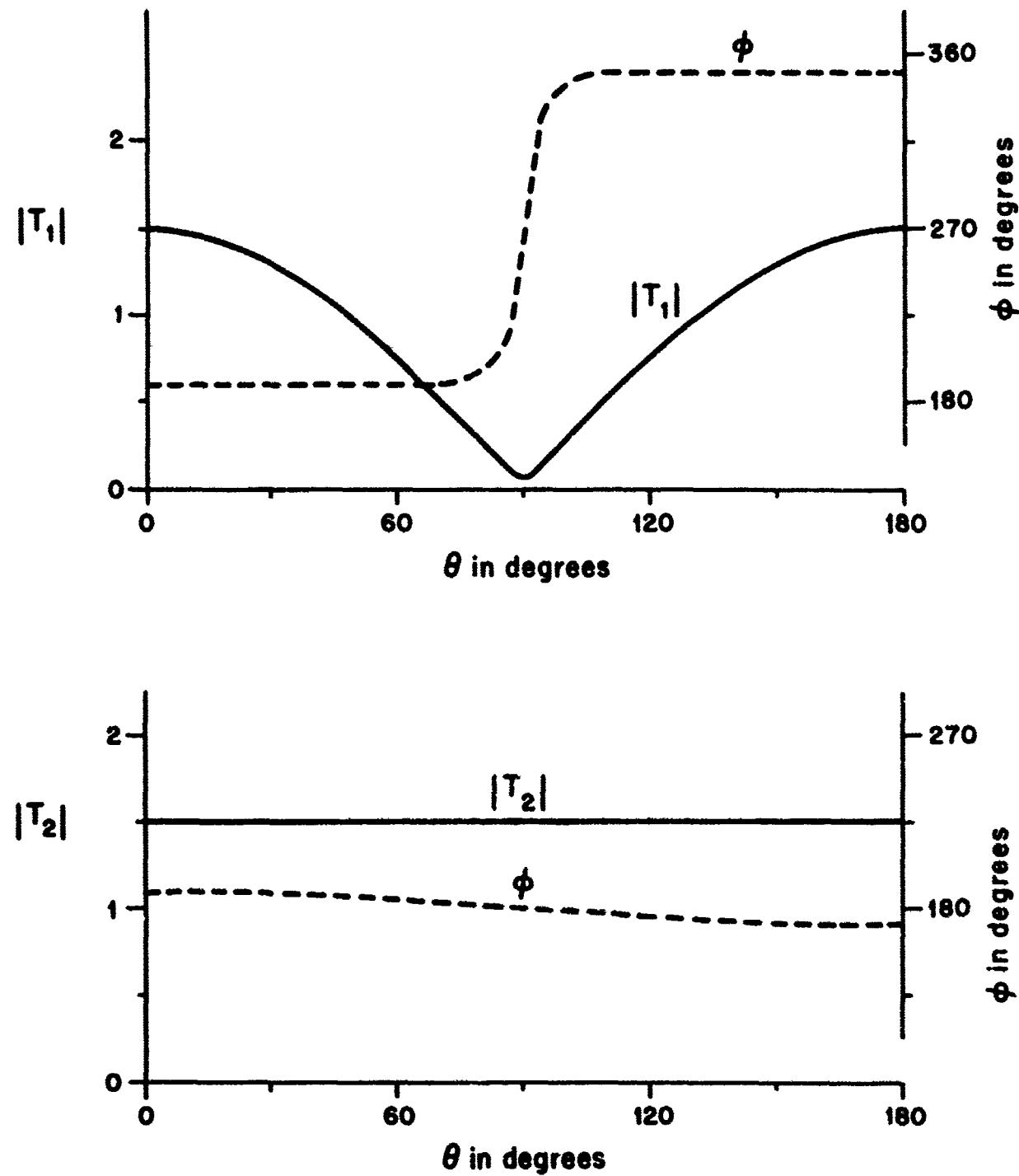


FIG. 1: SURFACE CURRENT COMPONENTS FOR $ka = 0.1$

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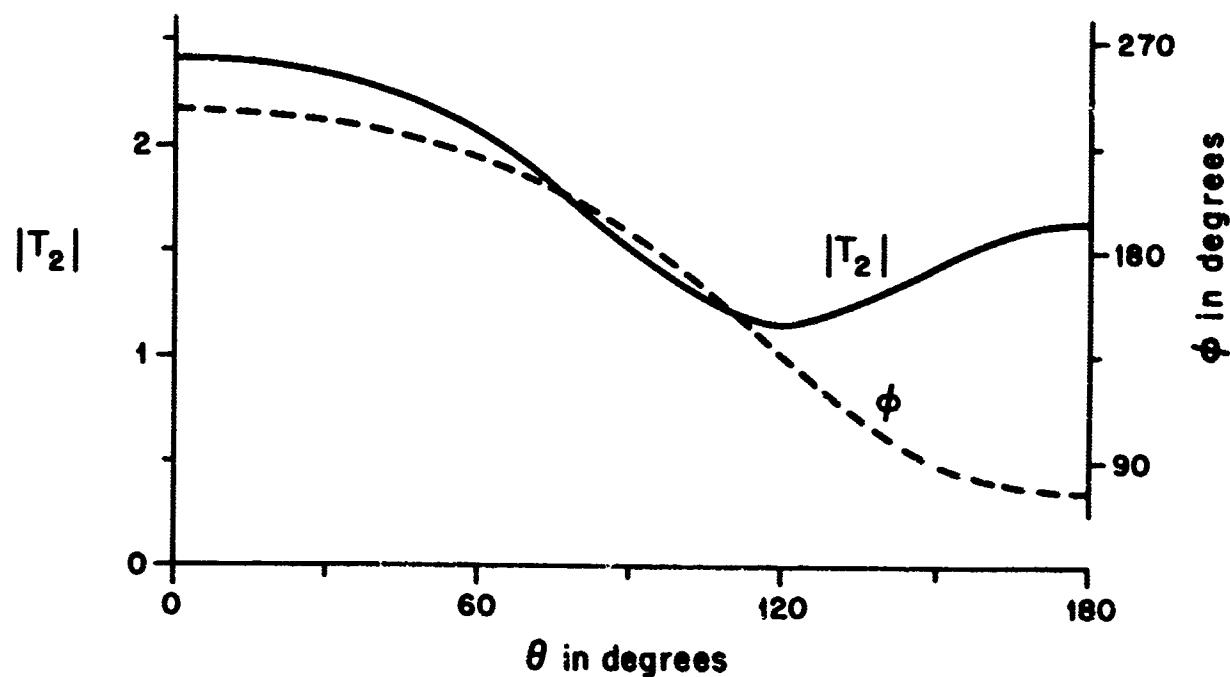
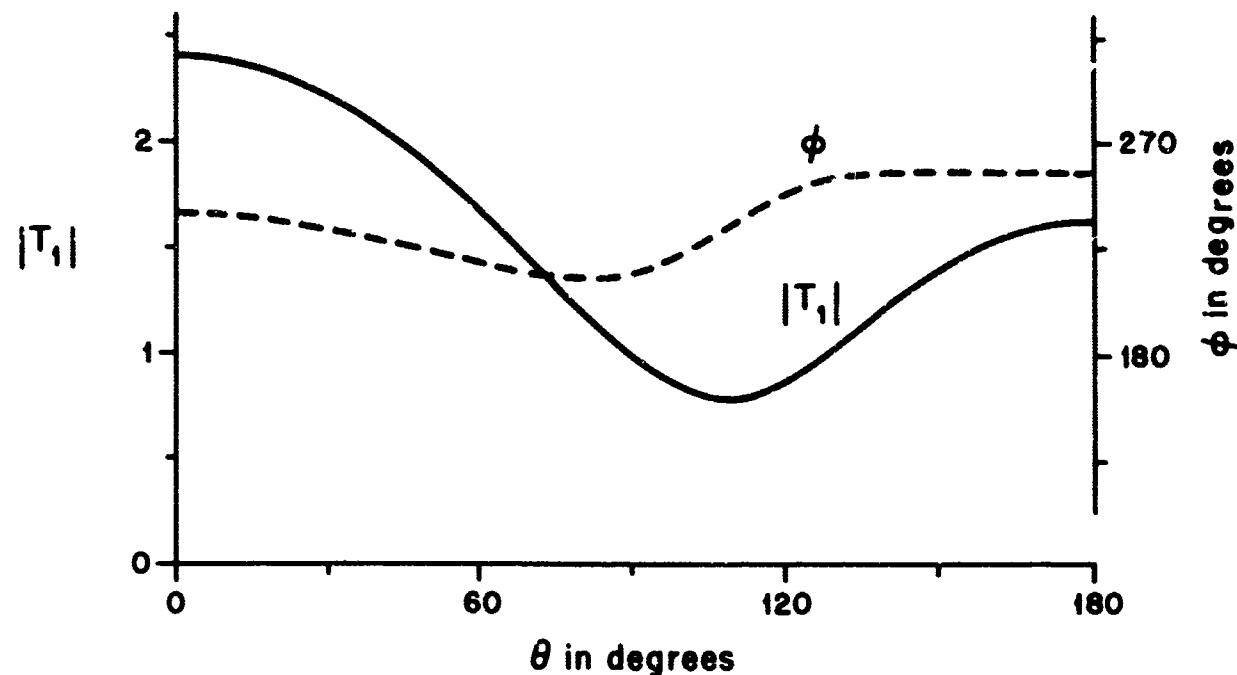


FIG. 2: SURFACE CURRENT COMPONENTS FOR $ka = 1.0$

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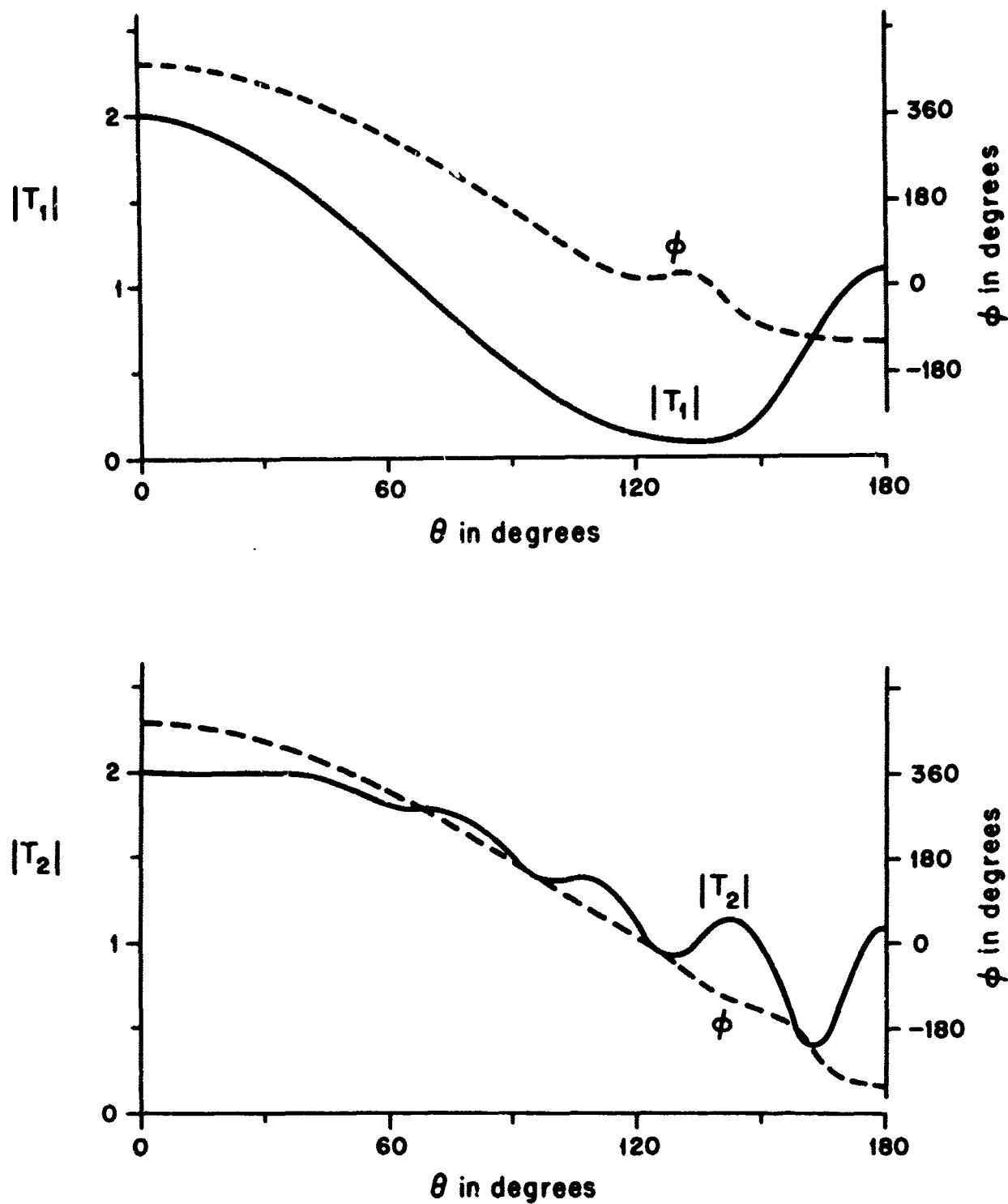


FIG. 3: SURFACE CURRENT COMPONENTS FOR $ka = 5.0$

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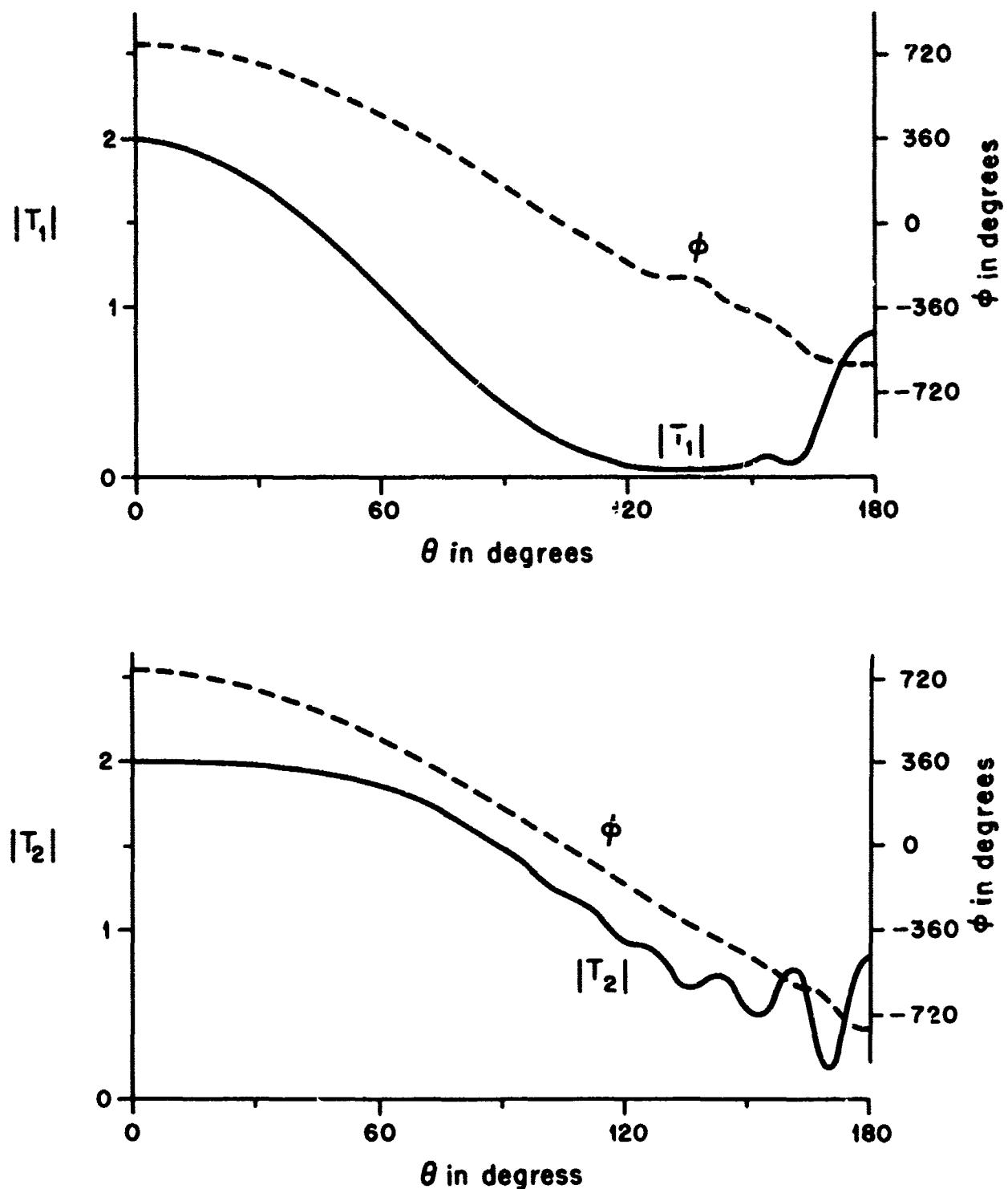


FIG. 4: SURFACE CURRENT COMPONENTS FOR $ka = 10.0$

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ACKNOWLEDGEMENTS

The authors are indebted to Dr. T. B. A. Senior for his detailed assistance, and to Mr. H. E. Hunter for hand computations associated with the checking of the tables.

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TABLES OF $T_1(\theta)$ AND $T_2(\theta)$

KA = - .1

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.48616	-.23432	1.50452	188.960	0	-1.48616	-23432	1.50452	188.960
5	-1.48057	-.23305	1.49880	188.945	5	-1.48624	-23343	1.50446	188.926
10	-1.46384	-.22930	1.48169	188.903	10	-1.48650	-23077	1.50430	188.825
15	-1.43609	-.22318	1.45333	188.834	15	-1.48691	-22637	1.50404	188.656
20	-1.39750	-.21487	1.41392	188.741	20	-1.48747	-22026	1.50369	188.423
25	-1.34834	-.20462	1.36378	188.629	25	-1.48816	-21247	1.50325	188.125
30	-1.28896	-.19274	1.30329	188.504	30	-1.48896	-20367	1.50274	187.766
35	-1.21976	-.17959	1.23291	188.376	35	-1.48984	-19213	1.50218	187.348
40	-1.14125	-.16557	1.15320	188.255	40	-1.49078	-17973	1.50158	186.874
45	-1.05399	-.15111	1.06477	188.159	45	-1.49175	-16596	1.50096	186.348
50	-95862	-.13663	.96831	188.112	50	-1.49272	-15093	1.50633	185.774
55	-855583	-.12260	.86457	188.152	55	-1.49366	-13475	1.49973	185.155
60	-74641	-.10941	.75438	188.339	60	-1.49454	-11754	1.49916	184.497
65	-63117	-.09749	.63866	188.781	65	-1.49534	-9944	1.49864	183.815
70	-51100	-.08719	.51839	189.683	70	-1.49602	-8058	1.49819	183.083
75	-38683	-.07883	.39478	191.518	75	-1.49658	-6110	1.49782	182.338
80	-25962	-.07265	.26960	195.633	80	-1.49698	-64116	1.49755	181.575
85	-13038	-.06885	.14744	207.838	85	-1.49723	-62091	1.49738	181.805
90	-00010	-.06754	.06754	269.914	90	-1.49731	-00449	1.49731	185.019
95	-13017	-.06876	.14722	332.155	95	-1.49721	-1992	1.49734	179.238
100	-25942	-.07248	.26936	344.391	100	-1.49695	-94017	1.49749	178.463
105	-38663	-.07857	.39453	348.513	105	-1.49653	-60111	1.49773	177.706
110	-51080	-.08685	.51813	350.350	110	-1.49596	-7959	1.49807	176.955
115	-63097	-.09707	.63839	351.254	115	-1.49525	-9845	1.49849	176.233
120	-74621	-.10892	.75411	351.695	120	-1.49444	-1655	1.49898	175.540
125	-85563	-.12203	.86429	351.883	125	-1.49355	-13376	1.49952	174.882
130	-95842	-.13600	.96802	351.924	130	-1.49259	-14994	1.50010	174.263
135	-10579	-.15041	1.06447	351.877	135	-1.49161	-16497	1.50070	173.689
140	-14105	-.16481	1.15289	351.781	140	-1.49063	-17874	1.50130	173.162
145	-21956	-.17878	1.23260	351.660	145	-1.48967	-19114	1.50189	172.688
150	-28676	-.19188	1.30296	351.532	150	-1.48878	-20268	1.50243	172.275
155	-34814	-.20372	1.36345	351.407	155	-1.48798	-21148	1.50293	171.911
160	-39730	-.21394	1.41358	351.295	160	-1.48728	-21927	1.50336	171.613
165	-43589	-.22222	1.45298	351.202	165	-1.48671	-22538	1.50370	171.380
170	-46364	-.22833	1.48134	351.133	170	-1.48630	-22979	1.50396	171.211
175	-48037	-.23207	1.49845	351.091	175	-1.48604	-23244	1.50411	171.110
180	1.48596	.23333	1.50417	351.076	180	-1.48596	.23333	1.50417	171.076

KA = .2

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.44658	-0.47435	1.52236	198.155	0	-1.44658	-0.47435
5	-1.44134	-0.47184	1.51661	198.127	5	-1.44691	-0.47258
10	-1.42566	-0.46440	1.49939	198.043	10	-1.44790	-0.46729
15	-1.39959	-0.45224	1.47084	197.907	15	-1.44952	-0.45850
20	-1.36326	-0.43573	1.43120	197.725	20	-1.45172	-0.44629
25	-1.31683	-0.41536	1.38078	197.506	25	-1.45443	-0.43074
30	-1.26052	-0.39172	1.31998	197.263	30	-1.45757	-0.41194
35	-1.19664	-0.36554	1.24931	197.013	35	-1.46163	-0.39004
40	-1.1954	-0.33758	1.16933	196.780	40	-1.46473	-0.36519
45	-1.03567	-0.30870	1.08070	196.598	45	-1.46853	-0.33757
50	-0.94356	-0.27976	0.8416	196.515	50	-1.47233	-0.30738
55	-0.84383	-0.25165	0.88055	196.606	55	-1.47600	-0.27483
60	-0.73717	-0.22520	0.77081	196.987	60	-1.47943	-0.24019
65	-0.62440	-0.20123	0.65602	197.863	65	-1.48252	-0.20370
70	-0.50637	-0.18046	0.53756	199.615	70	-1.48516	-0.16564
75	-0.38404	-0.16354	0.41741	203.066	75	-1.48728	-0.12632
80	-0.25843	-0.15097	0.29929	210.292	80	-1.48880	-0.08603
85	-0.13060	-0.14313	0.19376	227.622	85	-1.48967	-0.04509
90	-0.00165	-0.14027	0.14028	269.325	90	-1.48987	-0.0383
95	0.12730	-0.14247	0.19105	311.781	95	-1.48939	0.3743
100	0.25513	-0.14964	0.29577	329.608	100	-1.48823	0.7837
105	0.38074	-0.16155	0.41360	337.008	105	-1.48643	1.1866
110	0.50307	-0.17784	0.53358	340.531	110	-1.48404	1.5798
115	0.62109	-0.19799	0.65189	342.319	115	-1.48113	1.9603
120	0.73387	-0.22137	0.76653	343.214	120	-1.47778	2.3253
125	0.84053	-0.24725	0.87614	343.608	125	-1.47411	2.6717
130	0.94026	-0.27484	0.97960	343.706	130	-1.47021	2.9972
135	1.03237	-0.30328	1.07600	343.629	135	-1.46620	3.2991
140	1.11624	-0.33171	1.16448	343.450	140	-1.46220	3.5753
145	1.19134	-0.35926	1.24433	343.219	145	-1.45833	3.8238
150	1.25722	-0.38509	1.31488	342.970	150	-1.45471	4.0428
155	1.31353	-0.40841	1.37555	342.728	155	-1.45144	4.2308
160	1.35996	-0.42853	1.42588	342.510	160	-1.44862	4.3863
165	1.39629	-0.44484	1.46544	342.329	165	-1.44634	4.5084
170	1.42236	-0.45686	1.49393	342.193	170	-1.44466	4.5962
175	1.43804	-0.46421	1.51111	342.110	175	-1.44363	4.6492
180	1.44328	-0.46669	1.51686	342.0781	180	-1.44328	4.6669

KA = .3

		T1		T2	
		REAL	IMAGINARY	MAGNITUDE	ARGUMENT
		9	9	REAL	IMAGINARY
0	-1.38715	-72483	1.56510	207.588	0
5	-1.38249	-72112	1.55926	207.547	5
10	-1.36851	-71011	1.54177	207.425	10
15	-1.34519	-69211	1.51280	207.226	15
20	-1.31253	-66765	1.47258	206.961	20
25	-1.27054	-63742	1.42147	206.642	25
30	-1.21926	-60230	1.35991	206.289	30
35	-1.15877	-56332	1.28844	205.926	35
40	-1.08923	-52163	1.20769	205.590	40
45	-1.01088	-47846	1.11840	205.329	45
50	-92408	-43511	1.02139	205.214	50
55	-82929	-39287	.91764	205.349	55
60	-72712	-35303	.80829	205.898	60
65	-61829	-31680	.69473	207.130	65
70	-50369	-28530	.57807	209.528	70
75	-38429	-25947	.46368	214.028	75
80	-26119	-24013	.35479	222.595	80
85	-13557	-22785	.26513	239.248	85
90	-0.00868	-22300	.22317	267.772	90
95	-11821	-22571	.25479	297.643	95
100	-24303	-23586	.33924	315.952	100
105	-36693	-25312	.44577	325.401	105
110	-48634	-27690	.55964	330.345	110
115	-60095	-30643	.67456	332.983	115
120	-70977	-34076	.78733	334.355	120
125	-81195	-37879	.89596	334.990	125
130	-90675	-41933	.99901	335.182	130
135	-97355	-46110	1.09534	335.104	135
140	-1.07191	-50282	1.18398	334.869	140
145	-1.14145	-54321	1.26411	334.551	145
150	-1.20195	-58103	1.33502	334.200	150
155	-1.25323	-61516	1.39617	333.855	155
160	-1.29522	-64457	1.44675	333.543	160
165	-1.32788	-66840	1.48662	333.281	165
170	-1.35120	-68593	1.51534	333.086	170
175	-1.36519	-69666	1.53267	332.965	175
180	1.36985	-70027	1.53846	332.924	180

KA = .4

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ											
0	-1.31796	-.98814	1.64725	216.861	0	-1.31796	-.98814	1.64725	216.861	1.64616	216.738
5	-1.31409	-.98330	1.64125	216.807	5	-1.31920	-.98465	1.64616	216.738	1.64289	216.370
10	-1.30241	-.96892	1.62329	216.647	10	-1.32287	-.97422	1.64289	216.370	1.63752	215.757
15	-1.28283	-.94539	1.59356	216.389	15	-1.32885	-.95689	1.63752	215.757	1.632017	214.901
20	-1.25517	-.91337	1.55231	216.343	20	-1.33697	-.93273	1.632017	214.901	1.62099	213.804
25	-1.21921	-.87372	1.49996	215.627	25	-1.34696	-.90185	1.62099	213.804		
30	-1.17475	-.82758	1.43698	215.164	30	-1.35851	-.86440	1.61020	212.468		
35	-1.12158	-.77624	1.36399	214.687	35	-1.37124	-.82059	1.59862	210.897		
40	-1.05958	-.72117	1.28172	214.240	40	-1.38476	-.77065	1.58476	209.097		
45	-98871	-.666399	1.19098	213.884	45	-1.39862	-.71487	1.57073	207.073		
50	-90909	-.60637	1.09276	213.704	50	-1.41236	-.65362	1.55627	204.834		
55	-82097	-.55005	.98821	213.822	55	-1.42552	-.58729	1.54175	202.391		
60	-72482	-.49672	.87869	214.423	60	-1.43765	-.51635	1.52756	199.757		
65	-62128	-.44803	.76597	215.797	65	-1.44832	-.44135	1.51408	196.948		
70	-51120	-.40546	.65247	218.419	70	-1.45716	-.36284	1.50166	193.983		
75	-39563	-.37033	.54192	223.108	75	-1.46384	-.28148	1.49065	190.884		
80	-27578	-.34375	.44070	231.261	80	-1.46808	-.19793	1.48136	187.678		
85	-15299	-.32651	.36057	244.893	85	-1.46970	-.11290	1.47403	184.393		
90	-02871	-.31912	.32041	264.860	90	-1.46859	-.02712	1.46884	181.058		
95	-09558	-.32177	.33567	286.544	95	-1.46472	-.05865	1.46590	177.707		
100	-21837	-.33431	.39931	303.153	100	-1.45816	-.14367	1.46522	174.373		
105	-33824	-.35627	.49126	313.513	105	-1.44905	-.22722	1.46676	171.088		
110	-45382	-.38687	.59634	319.553	110	-1.43762	-.30858	1.47037	167.885		
115	-56391	-.42506	.70617	322.992	115	-1.42418	-.38708	1.47584	164.795		
120	-66747	-.46955	.81609	324.874	120	-1.40908	-.46208	1.48291	161.844		
125	-76365	-.51888	.92326	325.805	125	-1.39275	-.53301	1.49126	159.058		
130	-85179	-.57145	1.02572	326.143	130	-1.37564	-.59933	1.50052	156.458		
135	-93144	-.62557	1.12201	326.114	135	-1.35822	-.66058	1.51034	154.064		
140	-100233	-.67955	1.21097	325.864	140	-1.34100	-.71635	1.52034	151.889		
145	-106435	-.73172	1.29162	325.492	145	-1.32445	-.76628	1.53014	149.948		
150	-11754	-.78052	1.36313	325.069	150	-1.30903	-.81009	1.53941	148.249		
155	-116203	-.82448	1.42481	324.644	155	-1.29518	-.84752	1.54783	146.801		
160	-119800	-.86230	1.47607	324.254	160	-1.28328	-.87840	1.55512	145.609		
165	-122568	-.89291	1.51643	323.927	165	-1.27367	-.90255	1.56154	144.678		
170	-124527	-.91541	1.54553	323.680	170	-1.26660	-.91989	1.56540	144.516		
175	-125695	-.92917	1.56310	323.527	175	-1.26229	-.93032	1.56807	143.669		
180	1.26083	-.93380	1.56897	323.476	180	-1.26083	-.93380	1.56897	143.476		

KA = .5

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	0	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	0	
0	-1.25335	-1.26189	1.77855	225.195	0	-1.25335	-1.26189	1.77855	225.195	225.056	
5	-1.25043	-1.25602	1.77233	225.128	5	-1.25515	-1.25761	1.77679	225.056	224.641	
10	-1.24162	-1.23855	1.75375	224.929	10	-1.26050	-1.24479	1.77154	224.641	223.948	
15	-1.22666	-1.20994	1.72297	224.607	15	-1.26923	-1.22345	1.76289	223.948	222.977	
20	-1.20518	-1.17091	1.68033	224.174	20	-1.28107	-1.19365	1.75098	221.728	221.728	
25	-1.17671	-1.12251	1.62324	223.650	25	-1.29561	-1.15549	1.73602	220.200	218.394	
30	-1.14069	-1.06601	1.56127	223.062	30	-1.31240	-1.10908	1.71827	205.248	201.839	
35	-1.09660	-1.00295	1.48609	222.446	35	-1.33087	-1.05460	1.69806	200.000	198.250	
40	-1.04395	-93510	1.40151	221.852	40	-1.35641	-0.99230	1.67578	196.356	194.356	
45	-98236	-86437	1.30849	221.344	45	-1.37034	-0.92247	1.65190	190.334	186.171	
50	-91161	-79282	1.20814	221.013	50	-1.38995	-0.84552	1.62692	186.416	186.171	
55	-83173	-72258	1.10177	220.983	55	-1.40856	-0.76191	1.60142	180	180	
60	-74296	-65578	99098	221.433	60	-1.42545	-0.67222	1.57601	205.248	200.000	
65	-64586	-59447	87780	222.627	65	-1.44000	-0.57079	1.55133	201.839	198.250	
70	-54126	-54057	76497	224.963	70	-1.45159	-0.47727	1.52804	196.356	194.356	
75	-43026	-49577	65644	229.046	75	-1.45972	-0.37359	1.50677	190.334	186.171	
80	-31422	-46147	55830	235.749	80	-1.46400	-0.26695	1.48814	186.171	186.171	
85	-19470	-43874	48000	246.070	85	-1.46412	-0.15831	1.47265	180	180	
90	-07339	-42824	43449	260.276	90	-1.45993	-0.04866	1.46074	181.969	181.969	
95	-04793	-43022	43289	276.357	95	-1.45142	-0.06100	1.45270	177.594	173.276	
100	-16748	-44450	47501	290.645	100	-1.43869	-0.16963	1.44866	169.356	169.356	
105	-28356	-47047	54932	301.078	105	-1.42200	-0.27625	1.44859	164.836	164.836	
110	-39461	-50714	64258	307.886	110	-1.40174	-0.37991	1.45231	162.812	162.812	
115	-49927	-55317	74516	312.069	115	-1.37841	-0.47973	1.45949	160	160	
120	-59645	-60691	85093	314.502	120	-1.35259	-0.57480	1.46966	156.976	156.976	
125	-68529	-66652	95597	315.796	125	-1.32497	-0.66446	1.48224	153.366	153.366	
130	-76527	-73000	1.05760	316.351	130	-1.29628	-0.74804	1.49663	150.012	150.012	
135	-83610	-79526	1.15391	316.434	135	-1.26729	-0.82495	1.51214	146.938	146.938	
140	-89779	-85023	1.24339	316.224	140	-1.23877	-0.89474	1.52810	144.163	144.163	
145	-95053	-92290	1.32485	315.845	145	-1.21150	-0.95700	1.54388	141.694	141.694	
150	-99470	-98137	1.39732	315.386	150	-1.18619	-1.01145	1.55887	139.546	139.546	
155	-103078	-10393	1.45998	314.913	155	-1.16353	-1.05783	1.57252	137.724	137.724	
160	-105933	-107907	1.51214	314.471	160	-1.14412	-1.09597	1.58435	136.231	136.231	
165	-108086	-11553	1.55328	314.395	165	-1.12847	-1.12575	1.59397	135.069	135.069	
170	-109585	-14230	1.58296	313.811	170	-1.11698	-1.14707	1.60107	134.239	134.239	
175	-110469	-15866	1.60088	313.634	175	-1.10997	-1.15988	1.60541	133.740	133.740	
180	1.10761	1.16416	1.60688	313.574	180	-1.10761	1.16416	1.60688	133.574	133.574	

KA = .6

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.21011	-1.53482	1.95450	231.746	0	-1.21011	-1.53482	1.95450	231.746
5	-1.20834	-1.52804	1.94807	231.664	5	-1.21249	-1.52985	1.95267	231.661
10	-1.20287	-1.50785	1.92886	231.419	10	-1.21953	-1.51494	1.94481	231.166
15	-1.19333	-1.47473	1.89707	231.021	15	-1.23100	-1.49008	1.93279	230.439
20	-1.17910	-1.42947	1.85302	230.482	20	-1.24653	-1.45529	1.91616	229.418
25	-1.15940	-1.37317	1.79716	229.825	25	-1.26558	-1.41059	1.89511	228.102
30	-1.13332	-1.30723	1.73011	229.076	30	-1.28752	-1.35605	1.86991	226.485
35	-1.09990	-1.23337	1.65257	228.274	35	-1.31156	-1.29177	1.84089	224.565
40	-1.05825	-1.15355	1.56542	227.467	40	-1.33685	-1.21796	1.80848	222.336
45	-1.00755	-1.06998	1.46970	226.721	45	-1.36246	-1.13489	1.77321	219.793
50	-94724	-98504	1.36659	226.121	50	-1.38740	-1.04293	1.73558	216.933
55	-87700	-90125	1.25753	225.781	55	-1.41069	-94261	1.69663	213.751
60	-79687	-82115	1.14424	225.860	60	-1.43134	-83456	1.65687	210.245
65	-70725	-74724	1.02886	226.575	65	-1.44843	-71956	1.61732	206.417
70	-60893	-68184	.91417	228.233	70	-1.46114	-59851	1.57897	202.275
75	-50311	-62707	.80395	231.259	75	-1.46873	-47247	1.54285	197.832
80	-39132	-58467	.70354	236.206	80	-1.47064	-34257	1.51001	193.112
85	-27535	-55597	.62042	243.652	85	-1.46648	-21005	1.48145	188.151
90	-15725	-54182	.56418	253.816	90	-1.45605	-07621	1.45804	182.996
95	-03912	-54255	.54396	265.876	95	-1.43933	-05761	1.44048	177.768
100	-07691	-55793	.56321	277.848	100	-1.41655	-19009	1.42924	172.357
105	-16881	-58723	.61683	287.825	105	-1.38810	-31994	1.42449	167.021
110	-29478	-62919	.69482	295.104	110	-1.35459	-44591	1.42659	161.779
115	-39328	-68218	.78743	299.964	115	-1.31677	-56686	1.43361	156.709
120	-48311	-74419	.88725	302.991	120	-1.27557	-68176	1.44633	151.877
125	-56348	-81296	.98915	304.727	125	-1.23200	-78969	1.46336	147.341
130	-63397	-88610	1.09953	305.582	130	-1.18715	-68988	1.48365	143.145
135	-69454	-96113	1.18581	305.853	135	-1.14218	-98171	1.52609	139.321
140	-74549	-1.03563	1.27604	305.748	140	-1.09821	-1.06465	1.52956	135.889
145	-78740	-1.10727	1.35870	305.417	145	-1.05637	-1.13834	1.55298	132.861
150	-82105	-1.17392	1.43256	304.969	150	-1.01772	-1.20249	1.57536	130.243
155	-84734	-1.23366	1.49663	304.483	155	-1.98324	-1.25693	1.59582	128.035
160	-86723	-1.28482	1.55012	304.018	160	-1.95379	-1.30154	1.61360	126.235
165	-88160	-1.32605	1.59237	303.617	165	-1.93009	-1.33625	1.62868	124.839
170	-89125	-1.35626	1.62289	303.310	170	-1.91273	-1.36105	1.63876	123.846
175	-89679	-1.37470	1.64135	303.118	175	-1.90214	-1.37594	1.64532	123.251
180	.89859	-1.38089	1.64752	303.053	180	-.89859	1.38089	1.64752	123.053

KA = .7

		T1		T2						
		REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.20093	-1.78249	2.14930	0	-1.20093	-1.78249	2.14930	2.14930	236.030	236.030
5	-1.20043	-1.77496	2.14278	5	-1.20382	-1.77703	2.14643	2.14643	235.885	235.885
10	-1.19874	-1.75250	2.12326	10	-1.21240	-1.76062	2.13768	2.13768	235.448	235.448
15	-1.19532	-1.71560	2.09095	15	-1.22638	-1.73321	2.12321	2.12321	234.718	234.718
20	-1.18929	-1.66503	2.04615	20	-1.24526	-1.69474	2.10304	2.10304	233.692	233.692
25	-1.17953	-1.60191	1.98933	25	-1.26838	-1.64511	2.07730	2.07730	232.368	232.368
30	-1.16472	-1.52770	1.92105	30	-1.29490	-1.58429	2.04615	2.04615	230.740	230.740
35	-1.14343	-1.44419	1.84204	35	-1.32382	-1.51226	2.0984	2.0984	228.801	228.801
40	-1.1428	-1.35350	1.75316	40	-1.35404	-1.42909	1.98669	1.98669	226.545	226.545
45	-1.07600	-1.25805	1.65544	45	-1.38431	-1.33498	1.92315	1.92315	223.961	223.961
50	-1.02757	-1.16052	1.55007	50	-1.41336	-1.23025	1.87379	1.87379	221.038	221.038
55	-0.96831	-1.06376	1.43848	55	-1.43986	-1.11539	1.82134	1.82134	217.763	217.763
60	-0.89797	-0.97073	1.32237	60	-1.46251	-0.99108	1.76669	1.76669	214.124	214.124
65	-0.81678	-0.88436	1.20384	65	-1.48009	-0.85820	1.71093	1.71093	210.16	210.16
70	-0.72551	-0.80745	1.08552	70	-1.49147	-0.71781	1.65521	1.65521	205.701	205.701
75	-0.62542	-0.74253	0.97082	75	-1.49569	-0.57117	1.60103	1.60103	200.901	200.901
80	-0.51823	-0.69172	0.86432	80	-1.49200	-0.41968	1.54990	1.54990	195.711	195.711
85	-0.40606	-0.65667	0.77208	85	-1.47989	-0.26490	1.50341	1.50341	190.148	190.148
90	-0.29130	-0.63842	0.70174	90	-1.45912	-0.10846	1.46314	1.46314	184.251	184.251
95	-0.17649	-0.63738	0.66136	95	-1.42973	-0.04794	1.43053	1.43053	178.080	178.080
100	-0.06416	-0.65329	0.65643	100	-1.39206	-0.20262	1.4672	1.4672	171.718	171.718
105	0.04329	-0.68524	0.68661	105	-1.34673	-0.35395	1.39246	1.39246	165.275	165.275
110	0.14373	-0.73175	0.74574	110	-1.29462	-0.50037	1.38795	1.38795	158.868	158.868
115	0.23544	-0.79082	0.82513	115	-1.23686	-0.64049	1.39286	1.39286	152.623	152.623
120	0.31713	-0.86007	0.91667	120	-1.17474	-0.77307	1.40629	1.40629	146.652	146.652
125	0.38803	-0.93681	1.01400	125	-1.10974	-0.89703	1.42695	1.42695	141.051	141.051
130	0.44789	-1.01825	1.11240	130	-1.04341	-1.01152	1.45323	1.45323	135.889	135.889
135	0.49693	-1.10155	1.20845	135	-0.97735	-1.11587	1.48336	1.48336	131.214	131.214
140	0.53582	-1.18396	1.29957	140	-0.91315	-1.20960	1.51558	1.51558	127.050	127.050
145	0.56557	-1.26290	1.38376	145	-0.85237	-1.29240	1.54817	1.54817	123.406	123.406
150	0.58742	-1.33604	1.45947	150	-0.79647	-1.36468	1.57958	1.57958	120.280	120.280
155	0.60274	-1.40134	1.52547	155	-0.74677	-1.42460	1.60846	1.60846	117.663	117.663
160	0.61293	-1.45707	1.58074	160	-0.70443	-1.47395	1.63363	1.63363	115.544	115.544
165	0.61931	-1.50183	1.62452	165	-0.67045	-1.51221	1.65417	1.65417	113.911	113.911
170	0.62299	-1.53456	1.65620	170	-0.64561	-1.53945	1.66935	1.66935	112.752	112.752
175	0.62484	-1.55450	1.67538	175	-0.63048	-1.55576	1.67866	1.67866	112.060	112.060
180	0.62539	-1.56119	1.68180	180	-0.62539	-1.56119	1.68180	1.68180	111.830	111.830

KA = .8

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.22122	-1.96975	2.31760	238.202	0	-1.22122	-1.96975	2.31760	238.202
5	-1.22212	-1.96164	2.31119	238.077	5	-1.22460	-1.96413	2.31462	238.057
10	-1.22459	-1.93745	2.29201	237.704	10	-1.23463	-1.94722	2.30564	237.623
15	-1.22791	-1.89760	2.26023	237.094	15	-1.25095	-1.91890	2.29064	236.899
20	-1.23093	-1.84282	2.21612	236.259	20	-1.27297	-1.87897	2.26958	235.883
25	-1.23216	-1.77418	2.16007	235.220	25	-1.29987	-1.82721	2.24239	234.572
30	-1.22982	-1.69308	2.09260	234.006	30	-1.33062	-1.76335	2.20907	232.962
35	-1.22200	-1.60133	2.01433	232.652	35	-1.36400	-1.68722	2.16961	231.047
40	-1.20677	-1.50110	1.92603	231.203	40	-1.39861	-1.59869	2.12413	228.819
45	-1.18234	-1.39498	1.82863	229.716	45	-1.43291	-1.49777	2.07281	226.268
50	-1.14719	-1.28585	1.72321	228.262	50	-1.46526	-1.38466	2.01600	223.380
55	-1.10021	-1.17692	1.61108	226.929	55	-1.49398	-1.25976	1.95422	221.138
60	-1.04080	-1.07151	1.49379	225.833	60	-1.51740	-1.12374	1.88820	216.523
65	-0.96902	-0.97301	1.37323	225.118	65	-1.53392	-0.97751	1.81891	212.508
70	-0.88555	-0.88470	1.25175	224.972	70	-1.54210	-0.82228	1.74763	208.668
75	-0.79173	-0.80956	1.13235	225.638	75	-1.54669	-0.65950	1.67591	203.174
80	-0.68951	-0.75015	1.01890	227.412	80	-1.52873	-0.49085	1.60560	197.831
85	-0.58136	-0.70844	0.91644	230.627	85	-1.50556	-0.31820	1.53882	191.934
90	-0.47008	-0.68571	0.83137	235.568	90	-1.47092	-0.14357	1.47791	185.575
95	-0.35870	-0.68244	0.77097	242.273	95	-1.42491	-0.03098	1.42524	178.754
100	-0.25021	-0.69835	0.74182	250.288	100	-1.36802	-0.20338	1.38306	171.544
105	-0.14745	-0.73235	0.74705	258.616	105	-1.30116	-0.37163	1.35319	164.660
110	-0.05289	-0.78268	0.78446	266.134	110	-1.22557	-0.53386	1.33686	156.462
115	0.03149	-0.84695	0.84754	272.129	115	-1.14281	-0.68841	1.33413	148.936
120	0.10432	-0.92237	0.92825	276.453	120	-1.05467	-0.83385	1.34448	141.669
125	0.16489	-1.00584	1.01927	279.310	125	-0.96316	-0.96900	1.36625	134.827
130	0.21312	-1.09414	1.11471	281.022	130	-0.87039	-1.09296	1.39719	128.532
135	0.24955	-1.18409	1.21010	281.901	135	-0.77852	-1.20512	1.43471	122.863
140	0.27526	-1.27265	1.30298	282.264	140	-0.68669	-1.30568	1.47611	117.855
145	0.29173	-1.335704	1.388805	282.132	145	-0.60593	-1.39268	1.51879	113.513
150	0.30071	-1.43483	1.46660	281.837	150	-0.52918	-1.46794	1.56041	109.824
155	0.30410	-1.50392	1.53436	281.431	155	-0.46115	-1.53100	1.59895	106.763
160	0.30379	-1.56262	1.59187	281.002	160	-0.40335	-1.58209	1.63270	104.353
165	0.30150	-1.60958	1.63757	280.610	165	-0.35700	-1.62147	1.66032	102.419
170	0.29873	-1.64380	1.67072	280.300	170	-0.32327	-1.64938	1.68076	101.089
175	0.29659	-1.66460	1.69081	280.103	175	-0.30271	-1.66604	1.69331	100.298
180	0.29580	-1.67157	1.69754	280.035	180	-0.29580	-1.67157	1.69754	100.035

KA = .9

----- T1 -----

REAL IMAGINARY MAGNITUDE ARGUMENT

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.23978	-2.06844	2.41154	239.062	0	-1.23978	-2.06844	2.41154	239.062
5	-1.24220	-2.05996	2.40551	238.909	5	-1.24374	-2.06313	2.40900	238.916
10	-1.24915	-2.03462	2.38452	238.452	10	-1.25546	-2.04700	2.40133	238.478
15	-1.25974	-1.99278	2.35756	237.701	15	-1.27454	-2.01991	2.38841	237.749
20	-1.27255	-1.93503	2.31597	236.670	20	-1.30028	-1.98147	2.37001	236.726
25	-1.28569	-1.86230	2.26300	235.380	25	-1.33171	-1.93123	2.34587	235.411
30	-1.29694	-1.77589	2.19905	233.859	30	-1.36762	-1.86868	2.31567	233.801
35	-1.30384	-1.67749	2.12461	232.164	35	-1.40651	-1.79335	2.27912	231.893
40	-1.30388	-1.56927	2.04027	230.277	40	-1.44670	-1.70484	2.23594	229.683
45	-1.29469	-1.45386	1.94678	228.314	45	-1.48629	-1.63290	2.18594	227.162
50	-1.27420	-1.33434	1.84501	226.321	50	-1.52325	-1.48749	2.12906	224.319
55	-1.24080	-1.21417	1.73603	224.379	55	-1.55548	-1.35885	2.06543	221.140
60	-1.19352	-1.09708	1.62113	222.589	60	-1.58087	-1.21754	1.99539	217.602
65	-1.13216	-0.98689	1.50191	221.978	65	-1.59739	-1.06449	1.91958	213.679
70	-1.05730	-0.88738	1.38034	220.006	70	-1.60318	-0.90098	1.83901	209.336
75	-0.97037	-0.80205	1.25893	219.575	75	-1.59666	-0.72863	1.75505	204.529
80	-0.87356	-0.73391	1.14093	220.035	80	-1.57657	-0.54939	1.66955	199.212
85	-0.76970	-0.68529	1.03056	221.680	85	-1.54208	-0.36548	1.58480	193.333
90	-0.66208	-0.65773	0.93326	224.811	90	-1.49286	-0.17927	1.50359	186.848
95	-0.55425	-0.65184	0.85562	229.626	95	-1.42907	-0.0674	1.42909	179.730
100	-0.44976	-0.56725	0.80468	236.018	100	-1.35141	-0.19009	1.36472	171.993
105	-0.35193	-0.40270	0.78591	243.397	105	-1.26107	-0.36841	1.31378	163.715
110	-0.26362	-0.25610	0.80074	250.779	110	-1.15972	-0.53951	1.27907	155.052
115	-0.18705	-0.82468	0.84563	257.220	115	-1.04943	-0.70149	1.26230	146.239
120	-0.12371	-0.90518	0.91360	262.218	120	-0.93259	-0.85275	1.26359	137.560
125	-0.07425	-0.99406	0.99683	265.728	125	-0.81181	-0.99208	1.28190	129.293
130	-0.03851	-1.08769	1.08837	267.972	130	-0.68985	-1.11862	1.31423	121.662
135	-0.01561	-1.18255	1.18265	269.243	135	-0.56950	-1.23186	1.35714	114.811
140	-0.00402	-1.27536	1.27537	269.819	140	-0.45351	-1.33164	1.40675	108.807
145	-0.00173	-1.36323	1.36323	269.927	145	-0.34448	-1.41805	1.45929	103.654
150	-0.00644	-1.44367	1.44369	269.744	150	-0.24482	-1.49140	1.51136	99.322
155	-0.01571	-1.51466	1.51474	269.406	155	-0.15670	-1.55217	1.56006	95.765
160	-0.02715	-1.57460	1.57463	269.512	160	-0.08199	-1.60087	1.60297	92.932
165	-0.03857	-1.62230	1.62276	268.638	165	-0.02225	-1.63807	1.63822	95.778
170	-0.04814	-1.65692	1.65762	268.336	170	-0.02130	-1.66423	1.66437	89.267
175	-0.05447	-1.67789	1.67878	268.141	175	-0.04778	-1.67977	1.68045	88.371
180	-0.05667	-1.68492	1.68587	268.074	180	-0.05667	-1.68492	1.68587	88.074

T2

KA = 1.0

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.21165	-2.08056	2.40766	239.785	0	-1.21165	-2.08056	2.40766	239.785
5	-1.21567	-2.07192	2.40223	239.598	5	-1.21642	-2.07592	2.40666	239.631
10	-1.22736	-2.04608	2.38597	239.042	10	-1.23059	-2.06188	2.40118	239.175
15	-1.24569	-2.00324	2.35896	238.125	15	-1.25366	-2.03806	2.39277	238.403
20	-1.26893	-1.94385	2.32136	236.864	20	-1.28486	-2.00391	2.38045	237.333
25	-1.29482	-1.86860	2.27337	235.280	25	-1.32305	-1.95870	2.36368	235.962
30	-1.32066	-1.77855	2.21526	233.404	30	-1.36681	-1.90159	2.34184	234.292
35	-1.34343	-1.67524	2.14738	231.273	35	-1.41439	-1.83174	2.31426	232.326
40	-1.36003	-1.56069	2.07013	228.930	40	-1.46375	-1.74839	2.28023	230.064
45	-1.36745	-1.43753	1.98404	226.431	45	-1.51260	-1.65092	2.23969	227.504
50	-1.36301	-1.30893	1.88973	223.841	50	-1.55846	-1.53899	2.19027	224.640
55	-1.34454	-1.17858	1.78797	221.237	55	-1.59871	-1.41257	2.13336	221.463
60	-1.31065	-1.05056	1.67972	218.714	60	-1.63071	-1.27206	2.06818	217.957
65	-1.26080	-0.92917	1.56620	216.389	65	-1.65190	-1.1833	1.99485	214.098
70	-1.19549	-0.81871	1.44896	214.405	70	-1.65989	-0.9269	1.91386	209.854
75	-1.11617	-0.72322	1.33000	212.941	75	-1.65264	-0.7696	1.82617	205.180
80	-1.02530	-0.64620	1.21195	212.221	80	-1.62853	-0.59333	1.7325	200.018
85	-0.92610	-0.59043	1.09830	212.519	85	-1.58646	-0.40437	1.63718	194.299
90	-0.82240	-0.55769	0.99366	214.142	90	-1.52597	-0.21288	1.54075	187.942
95	-0.71833	-0.54873	0.90394	217.376	95	-1.44724	-0.02179	1.44741	180.863
100	-0.61805	-0.56313	0.83612	222.328	100	-1.35115	-0.16600	1.36131	172.996
105	-0.52541	-0.59941	0.79709	228.764	105	-1.23922	-0.34772	1.28708	164.326
110	-0.44371	-0.65512	0.79124	235.890	110	-1.11358	-0.52087	1.2938	154.933
115	-0.37544	-0.72705	0.81826	242.688	115	-0.97686	-0.68331	1.19213	145.027
120	-0.32218	-0.81145	0.87307	248.345	120	-0.83209	-0.83335	1.17764	134.957
125	-0.28451	-0.90432	0.94802	252.536	125	-0.68258	-0.96976	1.18590	125.141
130	-0.26201	-1.00163	1.03533	255.341	130	-0.53181	-1.09182	1.21445	115.970
135	-0.25341	-1.09953	1.12836	257.022	135	-0.38325	-1.19926	1.25901	107.722
140	-0.25668	-1.19458	1.22185	257.873	140	-0.24029	-1.29223	1.31438	100.534
145	-0.26925	-1.28381	1.31174	258.155	145	-0.10615	-1.37122	1.37532	94.426
150	-0.28824	-1.36478	1.39489	258.074	150	-0.01626	-1.43697	1.43706	89.352
155	-0.31066	-1.43563	1.46886	257.790	155	-0.12433	-1.49038	1.49556	85.231
160	-0.33360	-1.49499	1.53176	257.421	160	-0.21582	-1.53240	1.54753	81.983
165	-0.35445	-1.54189	1.58211	257.054	165	-0.28888	-1.56396	1.59042	79.535
170	-0.37101	-1.57574	1.61883	256.751	170	-0.34210	-1.58587	1.62235	77.827
175	-0.38163	-1.59617	1.64115	256.553	175	-0.37444	-1.59875	1.64201	76.819
180	-0.38528	-1.60299	1.64865	256.485	180	-0.38528	-1.60299	1.64865	76.485

$KA = 1.1$

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT		
0	-1.10768	-2.03831	2.31984	241.479	0	-1.10768	-2.03831	2.31984	241.479	241.307	2.31947
5	-1.11337	-2.02974	2.31504	241.254	5	-1.11362	-2.03464	2.31823	240.791	240.791	2.31579
10	-1.13003	-2.00403	2.30067	240.582	10	-1.13127	-2.02346	2.31579	239.937	239.937	2.31579
15	-1.15645	-1.96124	2.27680	239.474	15	-1.16009	-2.00426	2.31579	238.756	238.756	2.31579
20	-1.19065	-1.90156	2.24357	237.947	20	-1.19919	-1.97623	2.31161	237.239	237.239	2.30494
25	-1.23001	-1.82539	2.20113	236.027	25	-1.24729	-1.93830	2.30494	237.239	237.239	2.30494
30	-1.27132	-1.73346	2.14969	233.744	30	-1.30274	-1.88928	2.29488	235.412	235.412	2.28046
35	-1.31104	-1.62702	2.08950	231.138	35	-1.36349	-1.82788	2.28046	233.279	233.279	2.26038
40	-1.34542	-1.50787	2.02085	228.259	40	-1.42715	-1.75288	2.2369	230.849	230.849	2.23369
45	-1.37078	-1.37852	1.94405	225.161	45	-1.49096	-1.66325	2.19921	228.127	228.127	2.19921
50	-1.38377	-1.24217	1.85951	221.913	50	-1.55190	-1.55824	2.19921	225.117	225.117	2.15596
55	-1.38163	-1.10269	1.76772	218.594	55	-1.60676	-1.43753	2.15596	221.818	221.818	2.15596
60	-1.36244	-0.96451	1.66928	215.296	60	-1.65226	-1.30128	2.10316	218.223	218.223	2.04029
65	-1.32532	-0.83238	1.56503	212.131	65	-1.68514	-1.15026	2.04029	214.317	214.317	2.04029
70	-1.27057	-0.71115	1.45605	209.236	70	-1.70239	-0.98584	1.96724	216.675	216.675	1.96724
75	-1.19971	-0.60545	1.34383	206.778	75	-1.70137	-0.80999	1.88434	205.458	205.458	1.88434
80	-1.11542	-0.51934	1.23540	204.966	80	-1.67993	-0.62523	1.79251	204.414	204.414	1.69333
85	-1.02137	-0.45604	1.11856	204.561	85	-1.63664	-0.43451	1.69333	194.868	194.868	1.69333
90	-0.92194	-0.41769	1.01214	204.373	90	-1.57080	-0.24112	1.58919	198.727	198.727	1.48849
95	-0.82192	-0.40513	0.91634	206.239	95	-1.48257	-0.13997	1.48336	181.873	181.873	1.38608
100	-0.72613	-0.41790	0.83779	209.921	100	-1.37296	-0.32105	1.38608	174.179	174.179	1.28461
105	-0.63899	-0.45427	0.79401	215.410	105	-1.24385	-0.49190	1.28461	165.527	165.527	1.20298
110	-0.56428	-0.51141	0.76155	222.186	110	-1.09781	-0.65015	1.20298	155.864	155.864	1.14138
115	-0.50478	-0.58562	0.77314	229.240	115	-0.93812	-0.65015	1.14138	145.277	145.277	1.14138
120	-0.46215	-0.67264	0.81610	225.508	120	-0.76849	-0.79402	1.10501	134.664	134.664	0.92236
125	-0.43686	-0.76796	0.80352	240.365	125	-0.59300	-0.46111	1.09654	122.737	122.737	0.46111
130	-0.42823	-0.86714	0.96712	243.718	130	-0.41586	-0.40562	1.03466	111.897	111.897	0.40562
135	-0.43452	-0.96698	1.05930	245.783	135	-0.24131	-0.113097	1.15643	102.044	102.044	0.113097
140	-0.45318	-1.06119	1.15390	246.875	140	-0.07342	-0.21191	1.21414	93.467	93.467	0.21191
145	-0.48106	-1.14950	1.24610	247.291	145	-0.08402	-0.27848	1.28124	86.246	86.246	0.27848
150	-0.51468	-1.22875	1.23219	247.273	150	-0.22753	-0.35408	1.33198	101.327	101.327	0.35408
155	-0.55049	-1.29732	1.40928	247.007	155	-0.37386	-0.47932	1.41875	75.548	75.548	0.47932
160	-0.58509	-1.35415	1.47515	246.632	160	-0.46111	-0.50562	1.40562	71.836	71.836	0.50562
165	-0.61544	-1.39864	1.52806	246.249	165	-0.54650	-0.42865	1.52961	69.067	69.067	0.42865
170	-0.63902	-1.43050	1.56674	245.929	170	-0.60864	-0.44416	1.56718	67.147	67.147	0.44416
175	-0.65394	-1.44962	1.59029	245.719	175	-0.64639	-0.59037	1.45309	66.019	66.019	0.59037
180	-0.65904	-1.45599	1.59820	245.647	180	-0.65904	-0.45599	1.45599	65.647	65.647	0.45599

KA = 1.2

----- T1 -----

----- T2 -----

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-0.92794	-1.97992	2.18659	2.44.889	0	-0.92794	-1.97992	2.18659	2.44.889
5	-0.93535	-1.97163	2.18224	2.44.620	5	-0.93538	-1.97732	2.18740	2.44.683
10	-0.95712	-1.94669	2.16926	2.43.818	10	-0.95751	-1.96929	2.18974	2.44.670
15	-0.99189	-1.90497	2.14774	2.42.495	15	-0.99373	-1.9517	2.19321	2.43.058
20	-1.03746	-1.84635	2.11786	2.40.669	20	-1.04307	-1.9386	2.19723	2.41.659
25	-1.09083	-1.77083	2.07985	2.38.367	25	-1.10410	-1.90396	2.20093	2.39.891
30	-1.14837	-1.67875	2.03395	2.35.626	30	-1.17493	-1.86384	2.20326	2.37.773
35	-1.20595	-1.57094	1.98044	2.32.488	35	-1.25324	-1.81174	2.20296	2.35.227
40	-1.25921	-1.48887	1.91959	2.29.006	40	-1.33622	-1.74595	2.19660	2.32.572
45	-1.30376	-1.31484	1.85165	2.25.243	45	-1.42060	-1.66494	2.18864	2.29.528
50	-1.33554	-1.17202	1.77687	2.21.269	50	-1.50278	-1.56753	2.17152	2.26.208
55	-1.35111	-1.02438	1.69554	2.17.169	55	-1.57884	-1.45303	2.14570	2.22.624
60	-1.34798	-0.87667	1.60798	2.13.038	60	-1.64473	-1.32137	2.10977	2.18.778
65	-1.32484	-0.73411	1.51463	2.08.991	65	-1.69641	-1.17322	2.06258	2.14.667
70	-1.28177	-0.60213	1.41615	2.05.163	70	-1.73006	-1.01001	2.03330	2.16.276
75	-1.22028	-0.48599	1.31350	2.01.715	75	-1.74230	-0.83392	1.93158	2.05.577
80	-1.14331	-0.39037	1.20811	1.98.852	80	-1.73036	-0.64784	1.84766	2.06.526
85	-1.05495	-0.31901	1.10213	1.96.825	85	-1.69231	-0.45524	1.75247	1.95.056
90	-0.96021	-0.27438	0.99865	1.95.948	90	-1.62715	-0.25997	1.64770	1.89.078
95	-0.86458	-0.25750	0.90211	1.96.585	95	-1.53494	-0.06609	1.53637	1.82.465
100	-0.77358	-0.26783	0.81863	1.99.097	100	-1.41684	-0.12241	1.42212	1.75.262
105	-0.69227	-0.30338	0.75583	2.03.665	105	-1.27563	-0.30178	1.31026	1.66.684
110	-0.62492	-0.36088	0.72164	2.10.056	110	-1.11262	-0.46877	1.20734	1.57.153
115	-0.57461	-0.43611	0.72137	2.17.197	115	-0.93354	-0.62077	1.12169	1.46.377
120	-0.54309	-0.52425	0.75484	2.23.988	120	-0.74227	-0.75593	1.05943	1.34.478
125	-0.53069	-0.62028	0.81632	2.29.451	125	-0.54369	-0.87321	1.02864	1.21.958
130	-0.53638	-0.71936	0.89732	2.33.291	130	-0.34286	-0.97239	1.03107	1.09.422
135	-0.55197	-0.81714	0.98946	2.35.673	135	-0.14477	-1.05401	1.06390	97.821
140	-0.59233	-0.90994	1.08574	2.36.938	140	-0.04579	-1.11922	1.12015	87.657
145	-0.63570	-0.99491	1.18066	2.37.423	145	-0.22440	-1.16969	1.19132	79.145
150	-0.68402	-1.07003	1.26998	2.37.411	150	-0.38710	-1.20741	1.26795	72.224
155	-0.73318	-1.13405	1.35042	2.37.117	155	-0.53043	-1.23454	1.34367	66.749
160	-0.77932	-1.18634	1.41942	2.36.699	160	-0.65152	-1.25323	1.41246	62.531
165	-0.81902	-1.22672	1.47501	2.36.271	165	-0.74804	-1.26544	1.47000	59.411
170	-0.84947	-1.25532	1.51573	2.35.914	170	-0.81823	-1.27287	1.51317	57.266
175	-0.86859	-1.27235	1.54756	2.35.680	175	-0.86083	-1.27679	1.53988	56.C12
180	-0.87511	-1.27801	1.54891	2.35.599	180	-0.87511	-1.27801	1.54891	55.599

KA = 1.2

KA = 1.4

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-41947	-1.90283	1.94851	257.568	0	-41947	-1.90283	1.94851	257.568
5	-43033	-1.89569	1.94392	257.211	5	-43045	-1.90114	1.95024	257.249
10	-46236	-1.87407	1.93026	256.141	10	-46318	-1.89975	1.95540	256.298
15	-51401	-1.83730	1.90785	254.370	15	-51702	-1.89463	1.96391	254.736
20	-58270	-1.78449	1.87721	251.916	20	-59087	-1.88518	1.97561	252.597
25	-66487	-1.71463	1.83902	248.805	25	-68310	-1.86925	1.99015	249.926
30	-75610	-1.62694	1.79466	245.374	30	-79147	-1.84430	2.00695	246.774
35	-85124	-1.52114	1.74313	240.768	35	-91316	-1.80759	2.02512	243.199
40	-94466	-1.39774	1.68702	235.947	40	-1.64439	-1.75633	2.04339	239.262
45	-1.03052	-1.25829	1.62643	230.683	45	-1.18107	-1.68796	2.06013	235.019
50	-1.10324	-1.10561	1.56189	225.362	50	-1.31817	-1.60035	2.07333	230.523
55	-1.15783	-0.94376	1.49374	219.184	55	-1.45020	-1.49268	2.08072	225.815
60	-1.19043	-0.77799	1.42211	213.166	60	-1.57132	-1.36261	2.07984	220.931
65	-1.19867	-0.61449	1.34730	207.142	65	-1.67555	-1.21249	2.06823	215.891
70	-1.18198	-0.45995	1.26832	201.263	70	-1.75710	-1.04342	2.04356	210.73
75	-1.14175	-0.32106	1.18603	195.766	75	-1.81074	-0.85828	2.00385	205.261
80	-1.08133	-0.20391	1.10039	190.679	80	-1.83204	-0.66103	1.94764	199.845
85	-1.00576	-0.11347	1.01214	186.437	85	-1.81777	-0.45651	1.87421	194.097
90	-92137	-0.05307	0.92289	183.297	90	-1.76611	-0.25016	1.78374	188.062
95	-83517	-0.02409	0.83552	181.652	95	-1.67681	-0.4771	1.67749	181.632
100	-75427	-0.02589	0.75471	181.966	100	-1.55123	-0.4526	1.55801	174.655
105	-68514	-0.05584	0.68741	184.659	105	-1.39230	-0.32366	1.42943	166.913
110	-63310	-0.10970	0.64253	189.831	110	-1.20434	-0.48321	1.29767	158.138
115	-60183	-0.18206	0.62877	196.831	115	-0.99281	-0.62073	1.17089	147.985
120	-59319	-0.26686	0.65046	204.221	120	-0.76396	-0.73431	1.35965	136.134
125	-60713	-0.35802	0.70483	210.528	125	-0.52454	-0.82334	0.97624	122.551
130	-64183	-0.44993	0.78383	215.31	130	-0.28140	-0.88853	0.93262	127.573
135	-69403	-0.53783	0.87803	217.773	135	-0.04123	-0.93169	0.93260	92.534
140	-75939	-0.61812	0.97916	219.144	140	-0.18972	-0.95563	0.97428	78.771
145	-83292	-0.68841	1.08559	219.574	145	-0.40582	-0.96380	1.04575	67.166
150	-90941	-0.74748	1.17718	219.418	150	-0.60217	-0.96009	1.13330	57.904
155	-98379	-0.79513	1.26494	218.946	155	-0.77466	-0.94850	1.22464	50.761
160	-1.05141	-0.83190	1.34672	218.352	160	-0.91995	-0.93289	1.31019	45.400
165	-1.10830	-0.85877	1.40208	217.770	165	-1.03545	-0.91677	1.38297	41.521
170	-1.15126	-0.87692	1.44719	217.296	170	-1.11924	-0.90303	1.43811	38.897
175	-1.17797	-0.88730	1.47476	216.989	175	-1.17002	-0.89388	1.47243	37.379
180	-1.18703	-0.89068	1.48403	216.883	180	-1.18703	-0.89068	1.48403	36.883

KA = 1.5

KA = 1.4

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	-0.41947	-1.90283	1.94851	257.568	0	-0.41947	-1.90283	1.94851	257.568
5	-0.43033	-1.89569	1.94392	257.211	5	-0.43045	-1.90214	1.95024	257.249
10	-0.46236	-1.87407	1.93026	256.141	10	-0.46318	-1.89975	1.95540	256.298
15	-0.51401	-1.83730	1.90785	254.370	15	-0.51702	-1.89463	1.96391	254.736
20	-0.58270	-1.78449	1.87721	251.916	20	-0.59087	-1.88518	1.97561	252.597
25	-0.66487	-1.71463	1.83902	248.805	25	-0.68310	-1.86925	1.99015	249.926
30	-0.75610	-1.62694	1.79466	245.374	30	-0.79147	-1.84430	2.00695	246.774
35	-0.85124	-1.52114	1.74313	240.768	35	-0.91310	-1.80759	2.02512	243.199
40	-0.94466	-1.39774	1.68702	235.947	40	-1.04439	-1.75633	2.04339	239.262
45	-1.03052	-1.25829	1.62643	230.683	45	-1.18107	-1.68796	2.06013	235.019
50	-1.10324	-1.10561	1.56189	225.562	50	-1.31817	-1.60035	2.07333	230.523
55	-1.15783	-0.94376	1.49374	219.184	55	-1.45020	-1.49268	2.08072	225.815
60	-1.19043	-0.77799	1.42211	213.166	60	-1.57132	-1.36261	2.07984	220.931
65	-1.19867	-0.61449	1.34770	207.142	65	-1.67555	-1.21249	2.06823	215.891
70	-1.18198	-0.45995	1.26832	201.263	70	-1.75710	-1.04342	2.04356	210.73
75	-1.14175	-0.32106	1.18603	195.766	75	-1.81074	-0.85828	2.00385	205.261
80	-1.08133	-0.20391	1.10039	190.679	80	-1.83204	-0.66153	1.94764	199.840
85	-1.00576	-0.11347	1.01214	186.437	85	-1.81777	-0.45651	1.87421	194.097
90	-0.92137	-0.05307	0.92289	183.297	90	-1.76611	-0.25016	1.78374	188.662
95	-0.83517	-0.02409	0.83552	181.652	95	-1.67681	-0.04771	1.67749	181.635
100	-0.75427	-0.02589	0.75471	181.966	100	-1.55123	-0.14526	1.55801	174.650
105	-0.68514	-0.05584	0.68741	184.659	105	-1.39230	-0.32366	1.42943	166.913
110	-0.63310	-0.10970	0.64253	189.831	110	-1.20434	-0.48321	1.29767	158.138
115	-0.60183	-0.18266	0.62877	196.831	115	-0.99281	-0.62073	1.17089	147.985
120	-0.59319	-0.26686	0.65046	204.221	120	-0.76396	-0.73431	1.35965	136.134
125	-0.60713	-0.35802	0.70483	210.528	125	-0.52454	-0.82334	0.97624	122.501
130	-0.64183	-0.44993	0.78383	215.31	130	-0.28140	-0.88853	0.93262	107.573
135	-0.69403	-0.53783	0.87803	217.773	135	-0.04123	-0.93169	0.93260	92.534
140	-0.75939	-0.61812	0.97916	219.144	140	-0.18972	-0.95563	0.97428	78.771
145	-0.83292	-0.68841	1.0859	219.574	145	-0.40582	-0.96380	1.04575	67.166
150	-0.90941	-0.74748	1.17718	219.418	150	-0.60217	-0.96009	1.13330	57.904
155	-0.98379	-0.79513	1.26494	218.946	155	-0.77466	-0.94850	1.22464	50.761
160	-1.05141	-0.83190	1.34672	218.352	160	-0.91995	-0.93289	1.31019	45.400
165	-1.10830	-0.85877	1.40208	217.770	165	-1.03545	-0.91677	1.38297	41.521
170	-1.15126	-0.87692	1.44719	217.296	170	-1.11924	-0.90303	1.43811	38.897
175	-1.17797	-0.88730	1.47476	216.989	175	-1.17002	-0.89388	1.47240	37.379
180	-1.18703	-0.89068	1.48403	216.883	180	-1.18703	-0.89068	1.48403	36.883

KA = 1.5

KA = 1.5

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	φ
0	-1.3471	-1.89802	1.90280	265.940	0
5	-1.14720	-1.89173	1.89745	265.551	5
10	-1.18412	-1.87253	1.88156	264.384	10
15	-1.24386	-1.83947	1.85557	262.448	15
20	-1.32373	-1.79118	1.82020	259.755	20
25	-1.41999	-1.72606	1.77642	256.324	25
30	-1.52792	-1.64262	1.72537	252.183	30
35	-1.64192	-1.53988	1.66832	247.371	35
40	-1.75578	-1.41771	1.60658	241.938	40
45	-1.86295	-1.27714	1.54135	235.954	45
50	-1.95702	-1.12066	1.47369	229.503	50
55	-1.03217	-0.95228	1.40436	222.695	55
60	-1.08374	-0.77748	1.33378	215.656	60
65	-1.10870	-0.60290	1.26222	208.537	65
70	-1.10605	-0.43592	1.18885	201.511	70
75	-1.07705	-0.28404	1.11388	194.774	75
80	-1.02523	-0.15418	1.03675	188.553	82
85	-0.95608	-0.05202	0.95750	183.115	85
90	-0.87665	-0.01860	0.87685	178.785	90
95	-0.79481	-0.05604	0.79679	175.967	95
100	-0.71851	-0.06103	0.72110	175.145	100
105	-0.65500	-0.03652	0.65602	176.809	105
110	-0.61015	-0.01271	0.6128	181.193	110
115	-0.58795	-0.08056	0.59344	187.862	115
120	-0.59027	-0.16032	0.61165	195.195	120
125	-0.61673	-0.24536	0.66380	201.692	125
130	-0.66526	-0.32968	0.74247	206.361	130
135	-0.73182	-0.40843	0.83808	209.166	135
140	-0.81149	-0.47813	0.94187	210.506	140
145	-0.89868	-0.53676	1.04677	210.849	145
150	-0.98768	-0.58367	1.14725	210.581	150
155	-1.07300	-0.61934	1.23892	209.994	155
160	-1.14976	-0.64504	1.31834	209.293	160
165	-1.21382	-0.66245	1.38282	208.624	165
170	-1.26190	-0.67333	1.43030	208.084	170
175	-1.29168	-0.67919	1.45936	207.736	175
180	-1.30177	-0.68102	1.46914	207.616	180

KA = 1.6

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	θ	REAL	IMAGINARY	MAGNITUDE
0	-14419	-1.91346	1.91888	274.309	0	-14419	-1.91346
5	-13022	-1.90816	1.91260	273.904	5	-13001	-1.91398
10	-08882	-1.89184	1.89393	272.688	10	-08765	-1.91513
15	-02163	-1.86324	1.86337	270.665	15	-01764	-1.91558
20	-0.06864	-1.82045	1.82175	267.841	20	-0.07902	-1.91323
25	-17814	-1.76122	1.77021	264.224	25	-0.20078	-1.91581
30	-30193	-1.68330	1.71016	259.831	30	-34539	-1.88828
35	-43404	-1.58490	1.64326	254.584	35	-50975	-1.85858
40	-56774	-1.46511	1.57127	248.818	40	-68979	-1.81232
45	-69577	-1.32438	1.49603	242.285	45	-88039	-1.74589
50	-81091	-1.16477	1.41925	235.155	50	-1.07543	-1.65623
55	-90644	-0.99015	1.34240	227.527	55	-1.26783	-1.54120
60	-97683	-0.80617	1.26654	219.533	60	-1.44982	-1.39989
65	-1.01833	-0.61995	1.19220	211.333	65	-1.61327	-1.23290
70	-1.02943	-0.43959	1.11936	203.123	70	-1.75010	-1.04251
75	-1.01119	-0.27344	1.04751	195.132	75	-1.85282	-0.83270
80	-96729	-0.12935	0.97590	187.617	80	-1.91500	-0.60906
85	-90370	-0.01378	0.90380	180.873	85	-1.93181	-0.37845
90	-82820	0.68885	0.83105	175.248	90	-1.90037	-1.4860
95	-74956	-0.11661	0.75857	171.158	95	-1.82002	-0.7243
100	-67664	-0.13027	0.68907	169.102	100	-1.69244	-0.27683
105	-61751	-0.11316	0.62779	169.616	105	-1.52146	-0.45768
110	-57861	-0.07065	0.58291	173.038	110	-1.31289	-0.60940
115	-56425	-0.00955	0.56433	179.031	115	-1.07404	-0.72819
120	-57626	-0.06276	0.57967	186.216	120	-81324	-0.81224
125	-61405	-0.13905	0.62950	192.760	125	-53934	-0.86179
130	-67484	-0.21301	0.70766	197.518	130	-26114	-0.87904
135	-75415	-0.27970	0.80435	200.349	135	0.01298	-0.86786
140	-84629	-0.33586	0.91060	201.644	140	0.27547	-0.83346
145	-94539	-0.37996	1.01888	201.895	145	0.51974	-0.78196
150	-1.04496	-0.41199	1.12324	201.517	150	-74035	-0.71995
155	-1.13934	-0.43321	1.21892	200.818	155	-93294	-0.65463
160	-1.22347	-0.44571	1.30213	200.017	160	-0.9422	-0.59046
165	-1.29317	-0.45194	1.36987	199.264	165	1.22175	-0.53478
170	-1.34521	-0.45432	1.41985	198.662	170	1.31389	-0.49157
175	-1.37732	-0.45487	1.45049	198.276	175	1.36955	-0.46424
180	-1.38817	-0.45489	1.46080	198.144	180	1.38817	-0.45489

KA = 1.7

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-40031	-1.94064	1.98150	281.655	0	-40031	-1.94064	1.98150	281.655
5	-38505	-1.93651	1.97442	281.246	5	-38513	-1.94157	1.97946	281.219
10	-33979	-1.92355	1.95333	280.018	10	-33970	-1.94388	1.97334	277.913
15	-26610	-1.90018	1.91872	277.972	15	-26444	-1.94612	1.96401	277.738
20	-16666	-1.86394	1.87138	275.109	20	-16013	-1.94596	1.95254	274.764
25	-04534	-1.81186	1.81243	271.433	25	-02807	-1.94027	1.94047	270.829
30	-09282	-1.74086	1.74333	266.948	30	-12969	-1.92524	1.92960	266.146
35	-24158	-1.64824	1.66585	261.664	35	-31019	-1.89668	1.72188	260.712
40	-39374	-1.53225	1.58203	255.589	40	-50938	-1.85021	1.91965	254.677
45	-54140	-1.39259	1.49413	248.755	45	-72197	-1.78168	1.92246	247.941
50	-67649	-1.23081	1.40447	241.205	50	-94142	-1.68754	1.93237	243.844
55	-79139	-1.05056	1.31528	233.009	55	-1.16002	-1.56525	1.94824	233.457
60	-87963	-85760	1.22851	224.273	60	-1.36914	-1.41370	1.96852	225.917
65	-93665	-65952	1.14554	215.150	65	-1.55959	-1.23357	1.98847	218.343
70	-96035	-46514	1.06707	205.843	70	-1.72211	-1.02749	2.00535	215.822
75	-95155	-28379	.99296	196.606	75	-1.84805	-.80016	2.01384	203.411
80	-91401	-12425	.92242	187.741	80	-1.92990	-.55816	2.03899	196.131
85	-85422	.00611	.85424	179.590	85	-1.96195	-.33962	1.98623	188.968
90	-78072	.10221	.78738	172.542	90	-1.94078	-.06373	1.94183	181.881
95	-70322	.16181	.72159	167.042	95	-1.86554	-.17000	1.87327	174.793
100	-63157	.18573	.65831	163.612	100	-1.73808	-.38241	1.77965	167.592
105	-57468	.17767	.60152	162.820	105	-1.56281	-.56542	1.66194	162.116
110	-53963	.14365	.55842	165.~94	110	-1.34635	-.71269	1.52335	152.156
115	-53097	.09120	.53875	170.254	115	-1.09707	-.82008	1.36970	143.221
120	-55053	.C2847	.55126	177.340	120	-82440	-.88590	1.21014	132.941
125	-59734	.03678	.59848	183.523	125	-53824	-.91098	1.05811	125.576
130	-66812	.09789	.67525	188.335	130	-24834	-.89851	93220	125.450
135	-75774	.14993	.77243	191.192	135	03624	-.85369	85446	87.569
140	-85995	.18994	.88068	192.455	140	30744	-.78327	84145	68.569
145	-96807	.21693	.99268	192.631	145	55851	-.69503	89163	51.215
150	-1.07554	.23169	1.1CC21	192.157	150	-784C1	-.59722	98557	37.298
155	-1.17640	.23631	1.1990	191.358	155	-97982	-.49803	99913	26.944
160	-1.26554	.23377	1.28695	190.466	160	-14294	-.40515	1.21263	19.518
165	-1.33889	.22735	1.35805	189.637	165	-27137	-.32536	1.31234	14.354
170	-1.39336	.22016	1.4164	188.979	170	-36382	-.26425	1.38917	16.964
175	-1.42685	.21474	1.44292	188.559	175	-41954	-.22582	1.43739	9.039
180	-1.43815	.21275	1.45380	188.415	180	-43815	-.21275	1.45380	8.415

KA = 1.8

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-62125	-1.96550	2.06135	287.541	0	.62125	-1.96550	2.06135	287.541
5	-60498	-1.96272	2.05384	287.131	5	.60567	-1.96690	2.05804	287.115
10	-55663	-1.95370	2.03145	285.903	10	.55898	-1.97055	2.04829	285.837
15	-47769	-1.93648	1.99453	283.857	15	.48136	-1.97488	2.03327	283.698
20	-37070	-1.90806	1.94373	280.995	20	.37327	-1.97732	2.01224	280.690
25	-23942	-1.86468	1.87999	277.317	25	.23562	-1.97440	1.98841	276.805
30	.08891	-1.80237	1.80456	272.824	30	.07003	-1.96189	1.96314	272.644
35	-.07444	-1.71746	1.71907	267.518	35	-.12090	-1.93504	1.93881	266.425
40	-.243C5	-1.60722	1.62550	261.401	40	-.33337	-1.88889	1.91868	259.991
45	-.40843	-1.47050	1.52617	254.478	45	-.56211	-1.81865	1.90354	252.925
50	-.56170	-1.30822	1.42371	246.763	50	-.80041	-1.72016	1.89727	245.047
55	-.69428	-1.12371	1.32089	238.290	55	-.1.C4007	-1.59C42	1.90331	236.817
60	-.79873	-.92278	1.22045	229.122	60	-.1.27171	-1.42805	1.91222	228.314
65	-.86957	-.71344	1.12479	219.367	65	-.1.48516	-1.23371	1.93074	219.716
70	-.90406	-.50529	1.03569	209.202	70	-.1.67066	-1.01043	1.95193	211.174
75	-.90268	-.30862	.95398	198.875	75	-.1.81655	-.76357	1.97051	202.799
80	-.86928	-.13330	.87944	188.718	80	-.1.91606	-.50091	1.98045	194.651
85	-.81082	.01236	.81091	179.127	85	-.1.96199	-.23198	1.97565	186.743
,0	-.73666	.12254	.74678	170.556	90	-.1.95036	.C3243	1.95063	179.047
95	-.65752	.19466	.68573	163.509	95	-.1.88016	.28112	1.90106	171.496
100	-.58429	.22956	.62777	158.550	100	-.1.75349	.50334	1.82430	163.984
105	-.52678	.23137	.57535	156.289	105	-.1.57538	.68973	1.71975	156.355
110	-.49269	.20676	.53432	157.234	110	-.1.35337	.83307	1.58922	148.386
115	-.48688	.16409	.51379	161.375	115	-.1.C9690	.92879	1.43731	139.744
120	-.51108	.11225	.52326	167.612	120	-.81656	.97537	1.2725	129.935
125	-.56396	.05960	.56710	173.967	125	-.52327	.97429	1.10597	118.239
130	-.64164	.01306	.64177	178.834	130	-.22762	.92986	.95731	163.755
135	-.73834	-.02247	.73868	181.743	135	.C6077	.84875	.85092	85.905
140	-.84720	-.04441	.84837	183.000	140	.33361	.73944	.81121	65.717
145	-.96167	-.05243	.96250	183.123	145	.58419	.61152	.84572	46.3C9
150	-1.07310	-.04815	1.07418	162.569	150	.8C743	.47509	.93683	36.472
155	-1.17726	-.03461	1.17777	181.684	155	.99971	.05596	1.05596	18.785
160	-1.26857	-.01572	1.26866	180.710	160	1.15869	.21561	1.21561	10.541
165	-1.34315	.00439	1.34316	179.813	165	1.283C3	.10983	1.28773	4.895
170	-1.39823	.02189	1.39840	179.103	170	1.37205	.02945	1.37237	1.230
175	-1.43196	.03371	1.43236	178.651	175	1.42550	-.02580	1.42565	359.164
180	-1.44332	.03788	1.44381	178.497	180	1.44332	-.03788	1.44381	358.497

T2

T1

$\kappa_A = 1.9$

T1		T2							
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.80261	-1.97070	2.12787	292.160	0	.80261	-1.97070	2.12787	292.16-
5	.78562	-1.96950	2.12040	291.747	5	.78727	-1.97284	2.12412	291.755
10	.73506	-1.96509	2.09807	290.509	10	.74119	-1.97869	2.11296	290.535
15	.65224	-1.95517	2.06110	288.448	15	.66426	-1.98652	2.09464	288.489
20	.53949	-1.93614	2.00989	285.570	20	.55649	-1.99348	2.06976	285.597
25	.40035	-1.90344	1.94569	281.878	25	.41822	-1.99572	2.03907	281.836
30	.23977	-1.85214	1.86759	277.376	30	.25044	-1.98848	2.00419	277.178
35	.06415	-1.77750	1.77866	272.067	35	.05518	-1.96638	1.96716	271.607
40	-.11864	-1.67574	1.67994	265.950	40	-.16423	-1.92371	1.93071	265.120
45	-.29959	-1.54471	1.57350	259.324	45	-.40283	-1.85489	1.89813	257.747
50	-.46904	-1.38458	1.46187	251.286	50	-.65389	-1.75499	1.87285	249.565
55	-.61742	-1.19824	1.34795	242.739	55	-.90892	-1.62034	1.85786	241.716
60	-.73625	-.99146	1.23493	233.403	60	-.15793	-1.44916	1.85491	231.373
65	-.81907	-.77263	1.12598	223.329	65	-.38986	-1.24182	1.86382	221.785
70	-.86238	-.55213	1.02399	212.629	70	-.59326	-1.00177	1.88202	212.165
75	-.86627	-.34126	.93106	201.501	75	-.75709	-.73512	1.90468	202.703
80	-.83462	-.15102	.84817	190.256	80	-.87171	-.45073	1.92521	193.540
85	-.77488	.00922	.77493	179.318	85	-.92963	-.15972	1.93623	184.732
90	-.69723	.13287	.70978	169.210	90	-.92635	.12533	1.93042	176.278
95	-.61349	.21695	.65072	160.525	95	-.86072	.39131	1.90142	168.124
100	-.53563	.26235	.59643	153.904	100	-.73517	.62570	1.84453	160.171
105	-.47441	.27362	.54767	150.025	105	-.55544	.81763	1.75725	152.271
110	-.43820	.25820	.50861	149.493	110	-.33010	.95883	1.63967	144.213
115	-.43212	.22527	.48731	152.466	115	-.06977	.04425	1.49494	135.692
120	-.45778	.18454	.49358	158.545	120	-.78617	.104561	1.32974	126.244
125	-.51345	.14493	.53352	164.237	125	-.49127	.115527	1.15527	115.166
130	-.59462	.11366	.60538	169.179	130	-.19637	.96923	1.88992	101.453
135	-.69482	.09549	.70136	172.175	135	.08853	.85155	1.85614	84.065
140	-.80664	.09255	.81193	173.454	140	.35514	.7287	.78750	63.194
145	-.92250	.10445	.92839	173.540	145	.59715	.53472	.8C157	41.843
150	-.03539	.12865	.1C4335	172.917	150	.81012	.35907	.88613	23.904
155	-.13936	.16110	1.15069	171.952	155	.99135	.18763	.600895	1.718
160	-.22967	.19696	1.24534	170.90C	160	1.13947	.03120	1.13990	1.569
165	-.30285	.23122	1.32321	169.936	165	1.25413	-.10081	1.25817	35.454
170	-.35654	.25935	1.38111	169.176	170	1.33553	-.20076	1.35053	351.451
175	-.38927	.27776	1.41676	168.694	175	1.38411	-.26302	1.40888	349.241
180	-1.40026	.28416	1.42880	168.529	180	1.40026	-.28416	1.42880	348.529

KA = 2.0

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.94920	-1.94070	2.16040	296.063	0	.94920	-1.94070	2.16040	296.063
5	.93177	-1.94134	2.15337	295.639	5	.93462	-1.94469	2.15708	295.676
10	.87983	-1.94235	2.13233	294.369	10	.89070	-1.95360	2.14707	294.569
15	.79446	-1.94105	2.09734	292.259	15	.81698	-1.96732	2.13021	292.552
20	.67768	-1.93323	2.04857	289.318	20	.71291	-1.98259	2.10640	289.782
25	.53269	-1.91355	1.98631	285.556	25	.57813	-1.99355	2.07569	286.172
30	.36417	-1.87604	1.91105	280.995	30	.41286	-1.99634	2.03858	281.685
35	.17844	-1.81483	1.82358	275.615	35	.21833	-1.98424	1.99622	276.279
40	-.01649	-1.72495	1.72503	269.452	40	-.50278	-1.95063	1.95063	269.918
45	-.21113	-1.60316	1.61700	262.498	45	-.24597	-1.88889	1.90484	262.581
50	-.39507	-1.44872	1.50162	254.746	50	-.50471	-1.79306	1.86274	254.279
55	-.55777	-1.26395	1.38155	246.189	55	-.77035	-1.65653	1.82871	245.586
60	-.68960	-1.05449	1.25996	236.817	60	-.03238	-1.48279	1.80679	235.153
65	-.78305	-.82904	1.14039	226.634	65	-.27890	-1.26602	1.79955	224.710
70	-.83376	-.59872	1.02646	215.682	70	-.49738	-1.01162	1.80707	214.043
75	-.84131	-.37590	.92147	204.375	75	-.67562	-.72640	1.82630	203.437
80	-.80959	-.17277	.82782	192.047	80	-.80285	-.42640	1.85121	193.126
85	-.74648	.00018	.74648	179.986	85	-.87039	1.06339	1.87373	183.255
90	-.66307	.13553	.67678	168.448	90	-.87417	.20108	1.88492	173.876
95	-.57226	.22985	.61670	158.117	95	-.81205	.48678	1.87629	164.963
100	-.48720	.28411	.56399	149.752	100	-.68720	.73617	1.84081	156.427
105	-.41965	.30332	.51779	144.141	105	-.50622	.93667	1.77371	148.124
110	-.37862	.29571	.48442	142.009	110	-.27886	.07876	1.67328	139.851
115	-.36952	.27140	.45848	143.704	115	-.01701	.15675	1.54026	131.322
120	-.39379	.24091	.46163	148.543	120	-.73368	.16926	1.38038	122.147
125	-.44921	.21378	.49749	154.551	125	-.44183	.11912	1.20318	111.544
130	-.53063	.19742	.56616	159.592	130	-.15342	.01302	1.02458	98.612
135	-.63090	.19646	.66078	162.703	135	-.12132	.86083	.86934	81.978
140	-.74205	.21251	.77188	164.319	140	-.37438	.67469	.77166	60.975
145	-.85618	.24434	.89336	164.072	145	-.60013	.46809	.76109	37.953
150	-.96624	.28845	.100838	163.378	150	.79517	.25491	.83503	17.774
155	-.06650	.33979	1.11932	162.328	155	.95805	.04861	.95928	2.905
160	-.15264	.39253	1.21765	161.194	160	1.08877	-.13845	1.09754	352.753
165	-.22176	.44082	1.29885	160.160	165	1.18828	-.29561	1.22450	346.030
170	-.27204	.47945	1.35940	159.348	170	1.25794	-.41421	1.32438	341.774
175	-.30251	.50436	1.39675	158.833	175	1.29911	-.48794	1.38772	339.414
180	-1.31271	.51295	1.40937	158.657	180	1.31271	1.40937	338.657	

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.07229	-1.86665	2.15272	299.875	0	1.07229	-1.86665	2.15272	299.875
5	1.05468	-1.86941	2.14640	299.431	5	1.05878	-1.87187	2.15056	299.494
10	1.00208	-1.87663	2.12742	298.101	10	1.01793	-1.88681	2.14388	298.347
15	.91531	-1.88531	2.09575	295.896	15	.94892	-1.90932	2.13213	296.427
20	.79595	-1.89062	2.05134	292.831	20	.85056	-1.93586	2.11448	293.719
25	.64678	-1.88640	1.99420	288.925	25	.72172	-1.96151	2.09057	290.231
30	.47205	-1.86564	1.92443	284.199	30	.56174	-1.98010	2.05824	285.838
35	.27787	-1.82127	1.84234	278.675	35	.37096	-1.98447	2.01885	286.588
40	.07230	-1.74702	1.74852	272.370	40	.15128	-1.96681	1.97262	274.398
45	-.13481	-1.63844	1.64398	265.296	45	-.09341	-1.91922	1.92150	267.214
50	-.33232	-1.49372	1.53024	257.457	50	-.35683	-1.83443	1.86881	258.992
55	-.50867	-1.31449	1.40948	248.845	55	-.53026	-1.76558	1.81924	249.731
60	-.65305	-1.10611	1.28451	239.442	60	-.90270	-1.53214	1.77829	239.494
65	-.75675	-.87753	1.15877	229.227	65	-.16141	-1.31070	1.75122	228.456
70	-.81443	-.64059	1.03617	218.187	70	-.39272	-1.04556	1.74152	216.897
75	-.82509	-.40872	.92078	206.352	75	-.58323	-.74406	1.74936	205.172
80	-.79250	-.19539	.81624	193.850	80	-.72099	-.41741	1.77088	193.633
85	-.72500	-.01226	.72511	180.969	85	-.79674	-.08067	1.79852	182.552
90	-.63454	.13233	.64820	168.220	90	-.80497	.25125	1.82237	172.075
95	-.53520	.23451	.58432	156.338	95	-.74454	.55902	1.83192	162.233
100	-.44131	.29529	.53099	146.213	100	-.61889	.82642	1.81762	152.956
105	-.36568	.32023	.48608	138.791	105	-.43569	.03890	1.77215	144.169
110	-.31800	.31840	.45100	134.965	110	-.20605	.18552	1.69116	135.492
115	-.30389	.30089	.42765	135.285	115	-.94339	.25983	1.57390	126.827
120	-.32461	.27910	.42810	139.310	120	-.66210	.26038	1.42370	117.714
125	-.37736	.26317	.46038	145.110	125	-.37626	.19061	1.24865	117.538
130	-.45635	.26071	.52557	150.261	130	-.9845	.05841	1.56298	95.314
135	-.55371	.27612	.61874	153.495	135	-.16102	.87526	.88995	79.576
140	-.66095	.31042	.73021	154.843	140	-.39462	.65515	.76482	58.938
145	-.76994	.36150	.85058	154.849	145	-.59770	.41348	.72679	34.675
150	-.87374	.42486	.97156	154.668	150	.76825	.16601	.78598	12.193
155	-.96697	.49441	1.08604	152.919	155	.90644	.07213	.90935	35.450
160	-.04595	.56336	1.18802	151.692	160	1.01398	-.28716	1.05386	34.188
165	-.10847	.62508	1.27257	150.581	165	1.09347	-.46723	1.18911	33.863
170	-.15343	.67374	1.33578	149.710	170	1.14771	-.60282	1.29639	33.290
175	-.18044	.70482	1.37484	149.159	175	1.17915	-.68698	1.36467	32.9775
180	-1.18944	.71550	1.38836	148.971	180	1.18944	-.71550	1.38866	328.971

KA = 2.2

T1		T2			
e	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ
0	1.18469	-1.74794	2.11158	304.128	0
5	1.16710	-1.75304	2.10661	303.654	5
10	1.11443	-1.76721	2.08926	302.236	10
15	1.02716	-1.78708	2.06124	299.889	15
20	.90638	-1.80727	2.02181	296.635	20
25	.75427	-1.82077	1.97082	292.502	25
30	.57458	-1.81954	1.90811	287.525	30
35	.37304	-1.79524	1.83359	281.739	35
40	.15764	-1.74626	1.74739	275.176	40
45	-.06148	-1.64876	1.64990	267.864	45
50	-.27248	-1.51775	1.54202	259.822	50
55	-.46276	-1.34800	1.42522	251.053	55
60	-.62023	-1.14448	1.30173	241.545	60
65	-.73488	-.91628	1.17457	231.270	65
70	-.80024	-.67594	1.04751	220.187	70
75	-.81457	-.43798	.92486	208.266	75
80	-.78148	-.21718	.81110	195.531	80
85	-.70967	-.02647	.71016	182.136	85
90	-.61197	.12484	.62458	168.470	90
95	-.50366	.23240	.55469	155.230	95
100	-.40034	.29727	.49864	143.404	100
105	-.31585	.32559	.45361	134.130	105
110	-.26056	.32733	.41837	128.520	110
115	-.24028	.31463	.39589	127.369	115
120	-.25601	.29980	.39423	130.496	120
125	-.30438	.29355	.42287	136.638	125
130	-.37878	.30367	.48548	141.281	130
135	-.47072	.33427	.57733	144.620	135
140	-.57121	.38570	.68923	145.971	140
145	-.67261	.45493	.81152	145.903	145
150	-.76639	.53643	.93547	145.610	150
155	-.84955	.62306	1.05354	143.744	155
160	-.91857	.70716	1.15924	142.469	160
165	-.97211	.78135	1.24720	141.239	165
170	-1.00994	.83926	1.31314	140.273	170
175	-1.03236	.87603	1.35396	139.683	175
180	-1.03978	.88863	1.36778	139.482	180

KA = 2.3

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT		
0	1.29679	-1.59064	2.05227	309.189	0	1.29679	-1.59064	2.05227	3.9.189		
5	1.27937	-1.59827	2.04725	308.676	5	1.28542	-1.60105	2.05321	3.8.765		
10	1.22709	-1.61991	2.03221	307.144	10	1.25075	-1.63140	2.05568	3.7.476		
15	1.14002	-1.65189	2.00709	304.611	15	1.19116	-1.67906	2.05867	3.5.353		
20	1.01868	-1.68830	1.97182	301.106	20	1.10431	-1.73959	2.06051	3.2.4.8		
25	.86456	-1.72133	1.92626	296.669	25	.98749	-1.80678	2.05902	2.98.659		
30	.68074	-1.74190	1.87019	291.346	30	.83826	-1.87264	2.05169	2.94.115		
35	.47245	-1.74039	1.80337	265.188	35	.65519	-1.92766	2.03596	288.772		
40	.24749	-1.70774	1.72558	278.246	40	.43853	-1.96119	2.00963	282.6.4		
45	.01621	-1.63667	1.63675	270.568	45	.19101	-1.96210	1.97137	275.560		
50	-.20889	-1.52285	1.53711	262.190	50	-.68164	-1.91962	1.92136	267.565		
55	-.41413	-1.36603	1.42742	253.135	55	-.37044	-1.82456	1.86179	258.523		
60	-.58606	-1.17066	1.30916	243.466	60	-.66321	-1.67046	1.79730	248.346		
65	-.71322	-.94590	1.18466	232.983	65	-.94525	-1.45485	1.73496	236.987		
70	-.78787	-.70492	1.05719	221.819	70	-.20032	-1.18017	1.68333	224.515		
75	-.80738	-.46338	.93090	209.853	75	-.41222	-.85438	1.65055	211.174		
80	-.77504	-.23741	.81059	197.031	80	-.5638	-.49085	1.64149	197.399		
85	-.69989	-.04131	.70111	183.378	85	-.65167	-.10763	1.65517	183.728		
90	-.59563	.11459	.60656	169.110	90	-.66172	.27390	1.68414	170.640		
95	-.47875	.22538	.52915	154.791	95	-.59589	.63097	1.71610	158.428		
100	-.36613	.29220	.46844	141.407	100	-.45947	.94160	1.73686	147.171		
105	-.27270	.32179	.42180	130.280	105	-.26312	1.18671	1.73313	136.787		
110	-.20951	.32510	.38676	122.799	110	-.02169	1.35198	1.69611	127.070		
115	-.18250	.31536	.36435	120.158	115	-.75252	1.42910	1.61512	117.770		
120	-.19233	.30579	.36125	122.168	120	-.47358	1.41633	1.49340	158.486		
125	-.23499	.30772	.38718	127.367	125	-.20160	1.31831	1.33364	98.694		
130	-.30307	.32904	.44734	132.647	130	-.04941	1.14535	1.14642	87.536		
135	-.38738	.37351	.53812	136.345	135	-.26921	*.91213	*.95103	73.556		
140	-.47856	.44073	.65059	137.357	140	-.45180	.63627	.78036	54.623		
145	-.56833	.52673	.77488	137.176	145	.59530	.33683	.68399	29.532		
150	-.65035	.62490	.90192	136.143	150	.70149	.03295	.70226	2.6.89		
155	-.72053	.72716	1.02368	134.738	155	.77488	-.25732	.81649	341.636		
160	-.77693	.82499	1.13324	133.282	160	.82170	-.51781	.97125	327.732		
165	-.81925	.91038	1.22473	131.984	165	.84884	-.73488	1.12275	319.216		
170	-.84824	.97655	1.29351	130.978	170	.86279	-.89772	1.26511	313.864		
175	-.86502	1.01837	1.33617	130.345	175	.86886	-.99854	1.32364	311.228		
180	-.87049	1.03267	1.35462	130.129	180	.87649	-1.03267	1.35062	312.129		

KA = 2.4

T1				T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.41468	-1.40482	1.99370	315.200	0	1.414	-1.40482	315.219
5	1.39757	-1.41507	1.98887	314.644	5	1.40445	-1.41821	314.712
10	1.34606	-1.44446	1.97442	312.984	10	1.37148	-1.45744	313.266
15	1.25979	-1.48906	1.95048	310.232	15	1.31505	-1.51965	310.872
20	1.13861	-1.54248	1.91720	306.434	20	1.23186	-1.60004	307.592
25	.98320	-1.59618	1.87469	301.632	25	1.11856	-1.69177	303.472
30	.79585	-1.64006	1.82296	295.885	30	.97192	-1.78598	293.555
35	.58117	-1.66324	1.76186	289.261	35	.78970	-1.87198	292.873
40	.34664	-1.65519	1.69110	281.828	40	.57147	-1.93758	286.433
45	.10271	-1.60796	1.61034	273.657	45	.31945	-1.96985	279.211
50	-.13748	-1.51308	1.51932	264.808	50	.03922	-1.95605	271.149
55	-.35916	-1.37165	1.41808	255.329	55	-.25994	-1.88494	262.148
60	-.54741	-1.18714	1.30728	245.245	60	-.56510	-1.74825	252.387
65	-.68919	-.96811	1.18836	234.553	65	-.86631	-1.54208	240.843
70	-.77528	-.72851	1.06385	223.219	70	-.12785	-1.26814	228.351
75	-.80203	-.48517	.93735	211.171	75	-.13498	-.93443	214.693
80	-.77227	-.25565	.81349	198.317	80	-.15102	-.55529	205.137
85	-.69530	-.05573	.69753	184.580	85	-.15969	-.15061	185.388
90	-.58567	-.10321	.59469	175.105	90	-.16031	-.25577	170.935
95	-.46108	-.21560	.50900	154.939	95	-.15288	-.63826	156.674
100	-.33975	-.28267	.44197	140.240	100	-.13806	-.97206	146.848
105	-.23772	-.31179	.39208	127.323	105	-.17113	1.23562	147.244
110	-.16667	-.31495	.35634	117.887	110	-.91775	1.41284	126.475
115	-.13266	-.30651	.33398	113.404	115	-.64038	1.49441	123.067
120	-.13596	-.30045	.32996	114.333	120	-.35928	1.47849	133.196
125	-.17181	-.30927	.35378	119.554	125	-.9284	1.37041	131.558
130	-.23198	-.34032	.41187	124.281	130	-.14408	1.18176	130.876
135	-.30663	-.39715	.50175	127.670	135	-.34135	-.92886	130.449
140	-.28603	-.47858	.61486	128.890	140	-.49397	-.63112	129.822
145	-.46202	-.57962	.74124	128.559	145	-.60191	-.30926	128.956
150	-.52881	-.69266	.87145	127.360	150	-.66933	-.01614	127.619
155	-.58323	-.80866	.99704	125.800	155	-.70349	-.32586	135.146
160	-.62445	-.91842	1.11060	124.212	160	-.71345	-.60297	134.12
165	-.65338	1.01343	1.20580	122.811	165	-.70876	-.83328	136.385
170	-.67190	1.08660	1.27755	121.731	170	-.69820	-.00569	124.30
175	-.68200	1.13265	1.32213	121.053	175	-.68883	-.11230	130.769
180	-.68519	1.14836	1.33724	120.823	180	-.68519	-1.14836	130.823

KA = 2.5

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.53983	-1.20227	1.95359	322.218	0	1.53983	-1.20227	1.95359	322.018
5	1.52316	-1.21510	1.94846	321.419	5	1.52963	-1.21854	1.95566	321.458
10	1.47281	-1.25222	1.93319	319.628	10	1.49829	-1.2638	1.96179	319.795
15	1.38793	-1.30946	1.90815	316.666	15	1.44360	-1.34282	1.97159	317.671
20	1.26761	-1.38003	1.87385	312.569	20	1.36223	-1.44278	1.98426	313.355
25	1.11165	-1.45476	1.83087	307.385	25	1.25021	-1.55897	1.99835	308.728
30	0.92142	-1.52259	1.77969	301.181	30	1.10365	-1.68181	2.01160	303.274
35	0.70074	-1.57142	1.72058	294.033	35	0.91959	-1.79954	2.02289	297.067
40	0.45663	-1.58924	1.65354	286.031	40	0.69698	-1.89858	2.02247	293.158
45	0.19958	-1.56558	1.57825	277.265	45	0.43765	-1.96423	2.01237	282.561
50	-0.05672	-1.49311	1.49419	267.825	50	0.14714	-1.98164	1.98710	274.246
55	-0.29636	-1.36914	1.40085	257.786	55	-0.16489	-1.93754	1.94454	265.136
60	-0.50290	-1.19669	1.29806	247.206	60	-0.48457	-1.82160	1.88495	255.13
65	-0.66153	-0.98476	1.18633	236.108	65	-0.79459	-1.62833	1.81183	243.988
70	-0.76142	-0.74772	1.06717	224.480	70	-1.07548	-1.35838	1.73258	231.635
75	-0.79766	-0.50355	0.94331	212.264	75	-1.30752	-1.01976	1.65817	217.951
80	-0.77254	-0.27137	0.81881	199.355	80	-1.47309	-0.62762	1.60122	2.3.077
85	-0.69548	-0.06844	0.69884	185.620	85	-1.55890	-0.20362	1.57214	187.442
90	-0.58187	0.09253	0.58918	1.0.965	90	-1.55800	0.22592	1.57429	171.749
95	-0.45065	0.20539	0.49525	1.5.498	95	-1.47093	0.63254	1.60117	156.731
100	-0.32141	0.27140	0.42067	1.9.822	100	-1.30598	0.98855	1.63793	142.876
105	-0.21129	0.29862	0.36581	125.282	105	-1.07830	1.26995	1.66599	13.334
110	-0.13261	0.30010	0.32859	113.840	110	-0.80818	1.45885	1.66776	118.986
115	-0.09150	0.29138	0.30541	107.434	115	-0.51854	1.54508	1.62978	108.552
120	-0.08775	0.28766	0.30275	106.964	120	-0.23227	1.52683	1.54439	98.655
125	-0.11580	0.30136	0.32284	111.020	125	0.03026	1.41025	1.41057	88.771
130	-0.16659	0.34046	0.37903	116.073	130	0.25326	1.20832	1.23458	78.162
135	-0.22959	0.40783	0.46802	119.378	135	0.42673	0.93907	1.53148	65.562
140	-0.29485	0.50145	0.58171	120.455	140	0.54689	0.62360	0.82944	48.75-
145	-0.35442	0.61534	0.71211	119.941	145	0.61579	0.28418	0.67820	24.773
150	-0.40323	0.74088	0.84351	118.558	150	0.64036	-0.65742	0.64293	354.876
155	-0.43920	0.86825	0.97301	116.832	155	0.63100	-0.38122	0.73722	328.862
160	-0.46281	0.98764	1.09170	115.108	160	0.59998	-0.66981	0.89923	311.852
165	-0.47632	1.09023	1.18974	113.600	165	0.55984	-0.90889	1.066747	31.632
170	-0.48282	1.16880	1.26460	112.445	170	0.52198	-1.08742	1.20623	295.642
175	-0.48530	1.21807	1.31118	111.723	175	0.49540	-1.19761	1.29602	292.473
180	-0.48588	1.23484	1.32699	111.478	180	0.48588	-1.23484	1.32699	291.478

KA = 2.6

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.66920	-.99459	1.94305	329.211	0	1.66920	-.99459	1.94305	329.211
5	1.65314	-1.00991	1.93721	328.579	5	1.65923	-1.01338	1.94422	328.585
10	1.60441	-1.05442	1.91988	326.687	10	1.62847	-1.06878	1.94787	326.723
15	1.52165	-1.12382	1.89166	323.552	15	1.57448	-1.15781	1.95436	323.671
20	1.40312	-1.21102	1.85346	319.203	20	1.49353	-1.27534	1.96395	319.516
25	1.24761	-1.30631	1.80637	313.683	25	1.38112	-1.41386	1.97648	314.329
30	1.05543	-1.39782	1.75152	307.055	30	1.23273	-1.56334	1.99089	308.257
35	.82949	-1.47229	1.68988	299.397	35	1.04475	-1.71124	2.00495	301.45
40	.57621	-1.51624	1.62203	290.808	40	.81557	-1.84276	2.01517	293.873
45	.30595	-1.51755	1.54808	281.399	45	.54664	-1.94159	2.01707	285.724
50	.03292	-1.46726	1.46762	271.285	50	.24351	-1.99099	2.00583	276.973
55	-.22588	-1.36128	1.37989	260.579	55	-.08364	-1.97545	1.97722	267.575
60	-.45237	-1.20173	1.28405	249.372	60	-.41995	-1.88253	1.92886	257.425
65	-.62987	-.99743	1.17966	237.728	65	-.74650	-1.70493	1.86129	246.354
70	-.74571	-.76328	1.06710	225.667	70	-.04189	-1.44222	1.77920	234.155
75	-.79361	-.51850	.94798	213.158	75	-.1.28436	-1.1C201	1.69234	220.630
80	-.77509	-.28381	.82541	200.111	80	-.45445	-.70021	1.61423	205.707
85	-.69965	-.07816	.70400	186.374	85	-.1.53767	-.26013	1.55952	189.602
90	-.58346	.08440	.58953	171.769	90	-.1.52678	.18949	1.53849	172.925
95	-.44674	.19702	.48825	156.202	95	-.1.42313	.61733	1.55126	156.550
100	-.31044	.26097	.40556	139.948	100	-.1.23696	.99290	1.58616	141.246
105	-.19286	.28501	.34413	124.085	105	-.98627	.28980	1.62367	127.444
110	-.10693	.28336	.30286	110.675	110	-.69474	.48853	1.64267	115.020
115	-.05878	.27277	.27903	102.160	115	-.38876	.57823	1.62540	103.838
120	-.04764	.26944	.27362	100.027	120	-.09427	.55735	1.56020	93.464
125	-.06711	.28634	.29410	103.191	125	-.16617	.43312	1.44272	83.386
130	-.10723	.33142	.34833	107.929	130	-.37568	.22004	1.27657	72.885
135	-.15684	.40702	.43620	111.374	135	-.52445	.93789	1.07456	60.787
140	-.20582	.51026	.55021	111.967	140	-.610C5	.60940	.86228	44.970
145	-.24659	.63417	.68042	111.248	145	-.63692	.25815	.68724	22.063
150	-.27496	.76922	.81689	109.670	150	-.61508	-.09328	.62211	351.377
155	-.29010	.90491	.95028	107.775	155	-.55843	-.42452	.70147	322.758
160	-.29394	1.03106	1.07214	105.912	160	-.48279	-.71825	.86543	303.918
165	-.29024	1.13870	1.17511	104.360	165	-.40403	-.96055	1.04206	292.813
170	-.28340	1.22070	1.25316	103.370	170	-.33639	-.1.14085	1.18941	286.429
175	-.27743	1.27193	1.30183	102.305	175	-.29105	-.25187	1.28526	283.088
180	-.27512	1.28934	1.31837	102.345	180	-.27512	-.28934	1.31837	282.045

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ			θ			θ			θ		
0	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	0	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	0	REAL
0	1.79579	-0.79151	1.96249	336.214	0	1.79579	-0.79151	1.96249	336.214	0	1.96249
5	1.78055	-0.80969	1.95575	335.563	5	1.78601	-0.81222	1.96292	335.545	5	1.96292
10	1.73468	-0.86039	1.93579	333.611	10	1.75573	-0.87345	1.96099	333.556	10	1.96099
15	1.65444	-0.94104	1.90334	330.369	15	1.70226	-0.97237	1.96041	330.264	15	1.96041
20	1.53900	-1.04377	1.85956	325.854	20	1.62150	-1.10405	1.96168	325.756	20	1.96168
25	1.38544	-1.15848	1.80597	320.398	25	1.50839	-1.26109	1.96611	320.103	25	1.96611
30	1.19287	-1.27262	1.74428	313.147	30	1.35777	-1.43337	1.97436	313.448	30	1.97436
35	0.96311	-1.37186	1.67618	305.071	35	1.16532	-1.60792	1.98579	315.932	35	1.98579
40	0.70179	-1.44133	1.60310	295.962	40	0.92880	-1.76908	1.99868	297.700	40	1.99868
45	0.41902	-1.46726	1.52592	285.938	45	0.64928	-1.89119	2.00711	288.874	45	2.00711
50	0.12939	-1.43898	1.44478	275.138	50	0.33225	-1.97972	2.60740	279.527	50	2.60740
55	-0.14901	-1.35091	1.35910	263.705	55	-0.01159	-1.99302	1.99336	269.067	55	1.99336
60	-0.39645	-1.20416	1.26775	251.777	60	-0.36624	-1.92450	1.95904	259.225	60	1.95904
65	-0.59424	-1.00728	1.16950	239.462	65	-0.71109	-1.76492	1.90278	248.055	65	1.90278
70	-0.72772	-0.77569	1.06362	226.828	70	-1.02254	-1.51248	1.82570	235.939	70	1.82570
75	-0.78901	-0.52988	0.95043	213.884	75	-1.27652	-1.17430	1.73450	222.612	75	1.73450
80	-0.77875	-0.29229	0.83180	200.573	80	-1.45147	-0.76681	1.64158	207.847	80	1.64158
85	-0.70642	-0.08369	0.71136	186.756	85	-1.53150	-0.31484	1.56352	191.617	85	1.56352
90	-0.58894	0.08043	0.59441	172.224	92	-1.50895	-0.15055	1.51644	174.362	92	1.51644
95	-0.44781	0.19239	0.48739	156.750	95	-1.38609	-0.59532	1.50852	156.757	95	1.50852
100	-0.30539	0.25350	0.39689	140.395	100	-1.17525	-0.98626	1.53425	139.997	100	1.53425
105	-0.18112	0.27322	0.32781	123.541	105	-0.89765	-1.29480	1.57552	124.733	105	1.57552
110	-0.08854	0.26698	0.28128	108.348	110	-0.58076	-1.53004	1.60854	111.164	110	1.60854
115	-0.03370	0.25281	0.25505	97.593	115	-0.25484	-1.59078	1.61106	99.101	115	1.61106
120	-0.01521	0.24794	0.24841	93.510	120	-0.05075	-1.56644	1.56686	88.144	120	1.56686
125	-0.02572	0.26585	0.26739	95.526	125	-0.31099	-1.43439	1.46771	77.767	125	1.46771
130	-0.05433	0.31444	0.31910	99.804	130	-0.50782	-1.21269	1.31417	67.268	130	1.31417
135	-0.08930	0.39548	0.40543	102.724	135	-0.63159	-0.92072	1.11653	55.551	135	1.11653
140	-0.12039	0.50518	0.51933	103.404	140	-0.68140	-0.58454	0.89777	40.625	140	0.89777
145	-0.14053	0.63565	0.65100	102.466	145	-0.66426	-0.22811	0.79234	18.953	145	0.79234
150	-0.14654	0.77657	0.79028	100.686	150	-0.59358	-0.12557	0.60672	348.056	150	0.60672
155	-0.13901	0.91693	0.92741	98.620	155	-0.48702	-0.45636	0.66742	316.861	155	0.66742
160	-0.12146	1.04637	1.05340	96.621	160	-0.36422	-0.74764	0.83164	295.973	160	0.83164
165	-0.09920	1.15607	1.16631	94.904	165	-0.24463	-0.98645	1.01633	283.928	165	1.01633
170	-0.07802	1.23915	1.24161	93.603	170	-0.14550	-1.16330	1.17237	277.129	170	1.17237
175	-0.06300	1.29086	1.29240	92.794	175	-0.08030	-1.27183	1.27436	273.613	175	1.27436
180	-0.05759	1.30840	1.30967	92.520	180	-0.05759	-1.30840	1.30967	272.520	180	1.30967

KA = 2.8

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.90986	-0.59907	2.01161	342.585	0	1.90986	-0.59907	2.00161	342.585
5	1.89572	-0.61865	1.99411	341.926	5	1.90049	-0.62099	1.99937	341.925
10	1.85237	-0.67596	1.97185	339.952	10	1.87136	-0.68599	1.99313	339.868
15	1.77723	-0.76667	1.93555	336.665	15	1.81951	-0.79156	1.98423	336.489
20	1.66673	-0.88345	1.88640	332.074	20	1.74034	-0.93323	1.97477	331.798
25	1.51730	-1.01600	1.82605	326.193	25	1.62817	-1.10407	1.96721	325.859
30	1.32670	-1.15120	1.75653	319.351	30	1.47702	-1.29427	1.96385	318.773
35	1.09547	-1.27383	1.68009	310.695	35	1.28171	-1.49084	1.96666	311.686
40	0.82826	-1.36768	1.59893	301.199	40	1.03918	-1.67767	1.97344	301.775
45	0.53472	-1.41736	1.51488	290.670	45	.74990	-1.83664	1.98327	292.217
50	0.22968	-1.41044	1.42932	279.249	50	.41919	-1.94583	1.99547	282.157
55	-.06776	-1.33974	1.34146	267.154	55	.05817	-1.98741	1.98826	271.677
60	-.33621	-1.20527	1.25128	254.414	60	-.31602	-1.94397	1.96449	260.767
65	-.55486	-1.01519	1.15692	241.341	65	-.68091	-1.80421	1.92843	249.323
70	-.70693	-0.78543	1.05672	228.011	70	-1.01051	-1.56483	1.86275	237.147
75	-.78276	-0.53779	.94970	214.491	75	-1.27808	-1.23224	1.77535	223.954
80	-.78198	-0.29655	.83632	200.768	80	-1.45962	-0.82320	1.67575	209.422
85	-.71392	-.08442	.71889	186.743	85	-1.53749	-0.36393	1.57997	193.317
90	-.59624	0.08150	.60179	172.216	90	-1.50343	1.1232	1.50762	175.727
95	-.45174	0.19267	.49111	156.902	95	-1.36049	0.56891	1.47465	157.3-7
100	-.30422	0.25033	.39397	140.550	100	-1.12324	0.97012	1.48418	139.184
105	-.17427	0.26473	.31694	123.356	105	-.81629	1.28539	1.52268	122.418
110	-.07598	0.25252	.26370	106.745	110	-.47122	1.49281	1.56542	107.519
115	-.01525	0.23308	.233357	93.744	115	-.12255	1.58117	1.58591	94.432
120	0.01003	0.22467	.22489	87.444	120	0.19664	1.55052	1.56294	82.772
125	0.00825	0.24126	.24140	88.042	125	0.45866	1.41112	1.48378	71.994
130	-.00872	0.29065	.29078	91.718	130	0.64411	1.18124	1.34544	61.397
135	-.02852	0.37399	.37508	94.360	135	0.74354	0.88434	1.15538	49.944
140	-.04089	0.48663	.48834	94.803	140	0.75759	0.54609	0.93390	35.785
145	-.03937	0.61977	.62152	93.635	145	0.69655	0.19173	0.72197	15.401
150	-.02194	0.76245	.76276	91.649	150	.57581	-.15588	.59654	344.853
155	-.00930	0.90336	.90341	89.410	155	.41849	-.47745	.63490	31.235
160	-.04916	1.03223	1.03340	87.273	160	.24770	-.75778	.79724	260.131
165	-.09070	1.14060	1.14420	85.453	165	.38653	-.98560	.98939	275.017
170	-.12673	1.22217	1.22872	84.080	170	-.04468	-1.15313	1.15399	267.781
175	-.15110	1.27270	1.28164	83.229	175	-.13009	-1.25542	1.26214	264.084
180	.15970	1.20980	1.29965	82.942	180	-.15970	-1.28980	1.29965	262.942

KA = 2.9

		T1			T2					
		REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.00109	-4.1864	2.04441	348.184	0	2.00109	-4.1864	2.04441	348.184	348.184
5	1.98842	-4.3994	2.03651	347.524	5	1.99264	-4.4111	2.04086	347.518	347.518
10	1.94928	-5.0244	2.01300	345.546	10	1.96617	-5.0789	2.03071	345.516	345.516
15	1.88043	-6.0195	1.97443	342.250	15	1.91833	-6.1750	2.01511	342.170	342.170
20	1.77725	-7.3122	1.92179	337.636	20	1.84391	-7.6464	1.99616	337.477	337.477
25	1.63482	-8.7989	1.85656	331.710	25	1.73635	-9.4468	1.97677	331.451	331.451
30	1.44938	-0.03449	1.78070	324.483	30	1.58861	-1.1485	1.96064	324.147	324.147
35	1.21999	-1.17903	1.69661	315.978	35	1.39435	-1.36198	1.94916	315.673	315.673
40	.95009	-1.29607	1.60771	306.243	40	1.14935	-1.57038	1.94635	306.246	306.246
45	.64864	-1.36860	1.51453	295.358	45	.85315	-1.75378	1.95029	295.941	295.941
50	.33050	-1.38237	1.42133	283.446	50	.51063	-1.89068	1.95842	285.114	285.114
55	.01566	-1.32851	1.32869	270.676	55	.13311	-1.95954	1.96465	273.886	273.886
60	-.27282	-1.20578	1.23626	257.251	60	-.26117	-1.94135	1.95884	262.338	262.338
65	-.51200	-1.62187	1.14296	243.387	65	-.64782	-1.82268	1.93438	250.434	250.434
70	-.68282	-1.79318	1.04660	229.276	70	-.99816	-1.59853	1.88458	238.618	238.618
75	-.77370	-1.54282	.94513	215.53	75	-.1.28245	-1.27448	1.80803	224.821	224.821
80	-.78308	-2.9705	.83753	200.773	80	-.1.47378	-1.86750	1.71014	210.482	210.482
85	-.72010	-0.8063	.72461	186.389	85	-.1.55232	-1.4508	1.60431	194.625	194.625
90	-.60312	.08756	.60944	171.740	90	-.1.52886	.07742	1.51084	177.063	177.063
95	-.45623	.19799	.49734	156.540	95	-.1.34699	.54083	1.45151	158.124	158.124
100	-.30471	.25186	.39533	140.424	100	-.1.08347	.94708	1.43905	138.843	138.843
105	-.17631	.26017	.31096	123.209	105	-.74640	1.26389	1.46783	120.564	120.564
110	-.06763	.24086	.2517	115.684	110	-.37172	1.46864	1.51495	104.23	104.23
115	-.00233	.21467	.21468	90.621	115	-.00157	1.55060	1.55060	89.942	89.942
120	.02857	.20090	.20292	81.906	120	.33640	1.51130	1.54829	77.451	77.451
125	.03458	.21399	.21676	80.820	125	.60219	1.36315	1.49024	66.166	66.166
130	.02863	.26155	.26311	83.753	130	.77812	1.12675	1.36932	55.371	55.371
135	.02367	.34408	.34489	86.664	135	.85486	.82758	1.18982	44.071	44.071
140	.02994	.45605	.45703	86.244	140	.83467	.49262	.96921	30.549	30.549
145	.05319	.58786	.59026	84.830	145	.73010	.14746	.74484	11.418	11.418
150	.09421	.72805	.73412	82.627	150	.56161	-.18571	.59152	341.703	341.703
155	.14930	.86523	.87802	80.210	155	.35476	-.48914	.60425	35.952	35.952
160	.21153	.98948	1.01184	77.933	160	.13710	-.74980	.76223	280.362	280.362
165	.27235	1.09301	1.12644	76.008	165	-.06468	-.95889	.96107	266.141	266.141
170	.32320	1.17034	1.21415	74.562	170	-.22718	-.1.1101	1.13399	258.444	258.444
175	.35687	1.21797	1.26918	73.669	175	-.33231	-.1.20318	1.24923	254.560	254.560
180	.36865	1.23404	1.28793	73.367	180	-.36865	-1.23404	1.28793	253.367	253.367

KA = 3.0

T1				T2					
#	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	#	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.06116	-0.24727	2.07594	353.159	0	2.06116	-0.24727	2.07594	353.159
5	2.05040	-0.27002	2.06810	352.498	5	2.05436	-0.26977	2.07200	352.519
10	2.01672	-0.33697	2.04468	350.514	10	2.03266	-0.33687	2.06039	350.590
15	1.95620	-0.44413	2.00598	347.209	15	1.99223	-0.44715	2.04179	347.355
20	1.86311	-0.58449	1.95264	342.582	20	1.92702	-0.59773	2.01760	342.767
25	1.73106	-0.74781	1.88568	336.636	25	1.82934	-0.78348	1.99006	336.815
30	1.55462	-0.92043	1.80666	329.372	30	1.69075	-0.99622	1.96242	329.493
35	1.33113	-1.08572	1.71776	320.798	35	1.50328	-1.22402	1.93858	320.847
40	1.06257	-1.22510	1.62171	310.936	40	1.26116	-1.45079	1.92232	311.060
45	.75695	-1.31997	1.52161	299.833	45	0.96255	-1.65660	1.91594	300.158
50	.42896	-1.35419	1.42051	287.576	50	0.61148	-1.81878	1.91382	288.583
55	.09929	-1.31707	1.32081	274.311	55	0.21922	-1.91393	1.92644	276.534
60	-.20742	-1.20597	1.22368	260.241	60	-.19508	-1.92083	1.93071	264.201
65	-.46603	-1.02797	1.12867	245.613	65	-.60500	-1.82384	1.92157	251.648
70	-.65508	-0.79985	1.03387	230.682	70	-.97900	-1.01618	1.88957	238.795
75	-.76094	-0.54609	.93661	215.665	75	-.1.28387	-1.30249	1.82389	225.412
80	-.78074	-0.29495	.83460	200.696	80	-.1.48934	-1.89992	1.74011	211.142
85	-.72332	-0.07349	.72704	185.801	85	-.1.57282	-1.43723	1.63246	195.535
90	-.60769	.09757	.61548	170.878	90	-.1.52367	.04807	1.52443	178.193
95	-.45932	.20758	.50405	155.680	95	-.1.34572	.51430	1.44064	159.084
100	-.30496	.25761	.39923	139.811	100	-.1.05771	.92105	1.40253	138.951
105	-.16751	.25944	.30882	122.850	105	-.69127	1.23454	1.41490	119.246
110	-.06205	.23230	.24144	104.954	110	-.28679	1.43180	1.6024	101.327
115	.00613	.19833	.19842	88.229	115	-.11203	1.50304	1.50721	85.737
120	.04098	.17784	.18249	77.025	120	.46398	1.45178	1.52412	72.277
125	.05326	.18566	.19315	73.992	125	.73543	1.29312	1.48762	60.372
130	.05702	.22915	.23614	76.327	130	.90403	1.05039	1.38585	49.283
135	.06583	.30810	.31506	77.940	135	.96057	.75130	1.21949	38.030
140	.08984	.41609	.42567	77.816	140	.90888	.42411	1.00296	25.015
145	.13405	.54277	.55908	76.127	145	.76423	.09466	.77004	7.046
150	.19793	.67637	.70473	73.689	150	.55060	-.21659	.59166	338.527
155	.27613	.80565	.85166	71.082	155	.29734	-.49354	.57619	301.067
160	.36000	.92133	.98917	68.657	160	.03577	-.72629	.72717	272.819
165	.43942	1.01658	1.10749	66.623	165	-.20400	-.90925	.93185	257.354
170	.50451	1.08691	1.19836	65.102	170	-.39576	-.04011	.1.1286	249.168
175	.54711	1.13002	1.25550	64.166	175	-.51930	-.1.11843	1.23311	245.094
180	.56193	1.16448	1.27499	63.849	180	-.56193	-1.14448	1.27499	243.849

KA = 3.1

T1				T2			
θ	REAL	IMAGINARY	MAGNITUDE	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.08556	-0.07932	2.08707	357.822	0	2.08556	-0.07932
5	2.07713	-0.10331	2.07970	357.153	5	2.08121	-0.10160
10	2.05020	-0.17412	2.05758	355.146	10	2.06664	-0.16828
15	2.00014	-0.28804	2.02077	351.805	15	2.03742	-0.27857
20	1.92004	-0.43845	1.96946	347.137	20	1.98646	-0.43053
25	1.80195	-0.61535	1.90412	341.145	25	1.90463	-0.62018
30	1.63861	-0.80509	1.82571	333.834	30	1.78171	-0.84042
35	1.42544	-0.99054	1.73581	325.205	35	1.60773	-1.08011
40	1.16268	-1.15206	1.63679	315.263	40	1.37481	-1.32349
45	.85714	-1.26943	1.53171	304.028	45	1.07929	-1.55025
50	.52304	-1.32457	1.42410	291.548	50	.72389	-1.73658
55	.18163	-1.30479	1.31737	277.925	55	.31945	-1.85728
60	-0.14098	-1.20587	1.21408	263.332	60	-1.11414	-1.88888
65	-0.41742	-1.03409	1.11516	248.018	65	-0.54849	-1.81346
70	-0.62377	-0.80653	1.01959	232.282	70	-0.94894	-1.62242
75	-0.74416	-0.54960	0.92476	216.418	75	-1.27847	-1.31947
80	-0.77430	-0.29189	0.82749	200.655	80	-1.50285	-0.92196
85	-0.72264	-0.06464	0.72553	185.111	85	-1.59624	-0.46010
90	-0.60886	-0.10998	0.61872	169.761	90	-1.54600	0.02627
95	-0.45976	-0.22009	0.50973	154.420	95	-1.35581	0.49280
100	-0.30366	-0.26656	0.40406	138.722	100	-1.04619	0.89670
105	-0.16460	-0.26194	0.30937	122.144	105	-0.65220	1.20283
110	-0.05806	-0.22678	0.23469	104.359	110	-0.21874	1.38806
115	.01112	-0.18457	0.18490	86.553	115	.20569	1.44412
120	.04798	-0.15659	0.16377	72.965	120	.57559	1.37710
125	.06468	-0.15798	0.17071	67.735	125	.85423	1.20534
130	.07643	-0.19575	0.21014	68.672	130	1.01771	0.95542
135	.09743	-0.26887	0.28598	70.581	135	1.05689	0.65757
140	.13772	-0.37001	0.39481	69.585	140	0.97715	0.34137
145	.20147	-0.48820	0.52814	67.575	145	0.79642	0.03235
150	.28677	-0.61145	0.67536	64.873	150	.54203	0.25067
155	.38664	-0.72897	0.82516	62.059	155	.24689	0.49322
160	.49076	-0.83238	0.96628	59.477	160	0.05421	0.69068
165	.58751	-0.91611	1.08831	57.327	165	-0.32809	0.84082
170	.66581	-0.97706	1.18235	55.728	170	-0.54605	0.94510
175	.71667	-1.01389	1.24161	54.745	175	-0.68606	1.00614
180	.73430	-1.02619	1.26185	54.414	180	-0.73430	-1.02619

-1.26185

KA = 3.02

		T1			T2					
	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.07409	.09130	2.07610	2.521	2.07409	0.09130	2.07610	.09130	2.521	2.07409
5	2.06838	.06621	2.06944	1.833	2.07292	0.06921	2.07407	.06921	1.912	2.07292
10	2.04940	-.00804	2.04941	359.775	2.06766	-.00292	2.06766	-.00292	.081	2.06766
15	2.01176	-.12810	2.01584	356.357	2.05315	-.10743	2.05596	-.10743	.575	2.05315
20	1.94737	-.28786	1.96853	351.591	2.02114	-.26081	2.03789	-.26081	.647	2.02114
25	1.84665	-.47775	1.90745	345.495	1.96082	-.45433	2.01277	-.45433	.955	1.96082
30	1.70035	-.68424	1.83286	338.380	1.85988	-.68196	1.90397	-.68196	3.863	1.85988
35	1.50181	-.88985	1.74564	329.352	1.70595	-.93340	1.94461	-.93340	3.15	1.70595
40	1.24927	-1.07395	1.64744	319.316	1.48864	-1.19318	1.90781	-1.19318	2.87	1.48864
45	.94805	-1.21471	1.54088	307.971	1.20196	-1.44064	1.87621	-1.44064	839	1.20196
50	.61168	-1.29196	1.42945	295.335	.84684	-1.65082	1.85536	-1.65082	157	.84684
55	.26174	-1.29085	1.31712	281.462	.43334	-1.79666	1.84818	-1.79666	560	.43334
60	-.07429	-1.20534	1.20763	266.473	.01820	-1.85240	1.85249	-1.85240	437	.01820
65	-.36682	-1.04073	1.10349	250.584	.65	-1.79778	1.86511	-1.79778	1.26	.65
70	-.58935	-.81423	1.00514	234.102	.70	-1.62238	1.85850	-1.62238	8.4	.70
75	-.72367	-.55296	.91175	217.383	.75	-1.26434	1.83436	-1.26434	429	.75
80	-.76389	-.28951	.81691	200.756	.80	-1.51212	1.77812	-1.51212	745	.80
85	-.71801	-.05581	.72018	184.444	.85	-1.62022	1.68807	-1.62022	300	.85
90	-.60634	-.12312	.61872	168.522	.90	-1.57356	1.7362	-1.57356	500	.90
95	-.45710	-.23405	.51353	152.886	.95	-1.37525	1.45649	-1.37525	1.74	.95
100	-.30016	-.27758	.40884	137.239	.100	-1.04735	1.36736	-1.04735	657	.100
105	-.16078	-.26698	.31165	121.057	.105	-0.62824	1.33159	-0.62824	151	.105
110	-.05476	-.22409	.23069	103.733	.110	-1.16737	1.34325	-1.16737	1.32	.110
115	.01357	.17375	.17428	85.534	.115	.28195	1.37963	.28195	450	.115
120	.05052	.13812	.14707	69.908	.120	.66989	1.29258	.66989	6.4	.120
125	.06971	.13253	.14974	62.255	.125	.95662	1.10435	.95662	1.035	.125
130	.08758	.16348	.18547	61.821	.130	1.11675	1.46107	1.11675	1.035	.130
135	.11895	.22906	.25811	62.556	.135	1.14125	1.46107	1.14125	1.124	.135
140	.17371	.32101	.36500	61.580	.140	1.03708	1.40061	1.03708	1.125	.17371
145	.25515	.42775	.49807	59.184	.145	.82476	1.40061	.82476	1.125	.25515
150	.35995	.53732	.64674	56.182	.150	.53471	1.28758	.53471	6.4	.35995
155	.47951	.63955	.79935	53.139	.155	.20314	.53115	.20314	488	.47951
160	.60195	.72728	.94478	50.386	.160	1.13214	.65981	1.13214	448	.60195
165	.71427	.79648	1.06984	48.115	.165	1.43533	.87398	1.43533	1.25	.71427
170	.80438	.84564	1.16711	46.433	.170	1.67568	.27085	1.67568	878	.80438
175	.86259	.87479	1.22854	45.402	.175	1.82970	.120324	1.82970	4.5	.86259
180	.88270	.88441	1.24954	45.056	.180	1.88270	1.24954	1.88270	0.56	.88270

KA = 3.03

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.03025	26926	2.04802	7.555	0	2.03025	26926	2.04802	7.555
5	2.02759	24318	2.04212	6.839	5	2.03279	24714	2.04776	6.932
10	2.01750	16581	2.02430	4.698	10	2.03843	18056	2.04641	5.062
15	1.99391	04002	1.99431	1.150	15	2.04127	6914	2.04244	1.943
20	1.94750	-12867	1.95174	356.220	20	2.03179	8692	2.03365	555
25	1.86703	-33127	1.89619	349.939	25	1.99744	28570	2.01777	351.866
30	1.74120	-55453	1.82737	342.334	30	1.92363	52212	1.99323	344.814
35	1.56168	-78074	1.74543	333.429	35	1.79533	78656	1.96038	336.341
40	1.32273	-98836	1.65121	323.232	40	1.59931	06380	1.92079	326.370
45	1.02971	-1.15391	1.54655	311.745	45	1.32682	33271	1.88058	314.873
50	.69459	-1.25504	1.43443	298.962	50	.97663	56709	1.84650	351.931
55	.33909	-1.27452	1.31885	284.898	55	.55754	73796	1.82520	287.786
60	-.03807	-1.20424	1.20426	269.616	60	.09609	81716	1.81939	272.838
65	-.31506	-1.04826	1.09458	253.272	65	-.39370	78208	1.82504	257.542
70	-.55271	-.82376	.99260	236.140	70	-.85262	62045	1.83107	242.248
75	-.79030	-.55910	.89612	218.603	75	-.24111	33440	1.82235	227.074
80	-.75025	-.28912	.80403	201.075	80	-.51574	94422	1.78483	211.871
85	-.71000	-.04842	.71165	183.901	85	-.64254	47852	1.71083	196.242
90	-.60050	.13561	.61562	167.274	90	-.00352	1166	1.60356	179.583
95	-.45142	.24823	.51517	151.195	95	-.40090	47736	1.48000	161.183
100	-.29430	.28968	.41295	135.454	100	-.35804	87042	1.37007	14.557
105	-.15559	.27389	.31500	119.600	105	-.61660	15281	1.30735	118.141
110	-.05144	.22400	.22983	102.934	110	-.13048	30217	1.30869	95.722
115	.01446	.16610	.16672	85.024	115	.34216	31437	1.35817	75.408
120	.04975	.12314	.13281	68.001	120	.74727	266	1.41592	58.145
125	.06961	.11050	.13360	57.790	125	.04206	99396	1.44008	43.647
130	.09176	.13403	.16243	55.606	130	.19979	72309	1.40033	31.076
135	.13160	.19080	.23179	55.405	135	.21174	42661	1.28465	19.395
140	.19833	.27160	.33660	53.794	140	.08652	3727	1.09515	7.200
145	.29578	.36434	.46928	53.933	145	.84714	12006	.85560	351.923
150	.41775	.45720	.61931	47.582	150	.52695	33028	.62190	327.922
155	.55457	.54095	.77471	44.287	155	.16502	48811	.51525	288.679
160	.69292	.60988	.92369	41.353	160	-.19831	59648	.62858	251.609
165	.81863	.66180	1.05268	38.953	165	-.52524	66385	.84651	231.649
170	.91879	.69731	1.15326	37.185	170	-.78351	70113	1.05141	221.824
175	.98320	.71710	1.21693	36.105	175	-.94864	1862	1.19011	217.145
180	1.00541	.72359	1.23872	35.742	180	-.00541	72359	1.23672	215.742

KA = 3.4

T1						T2								
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	S	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	S	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.96001	•45669	2.01251	13.116	0	1.96001	•45669	2.01251	13.116	0	1.96651	•43423	2.01387	12.451
5	1.93060	•42972	2.00714	12.362	5	1.96651	•43423	2.01387	12.451	5	1.98380	•36635	2.01734	11.463
10	1.96007	•34949	1.9998	10.110	10	1.98380	•36635	2.01734	11.463	10	2.0531	•25234	2.02112	7.172
15	1.95163	•21834	1.96381	6.384	15	2.0531	•25234	2.02112	7.172	15	2.02034	•69168	2.02242	2.598
20	1.92483	•04167	1.92527	1.222	20	2.02034	•69168	2.02242	2.598	20	2.01787	•11449	2.01787	356.747
25	1.86676	-1.7465	1.87485	354.673	25	2.01787	•11449	2.01787	356.747	25	1.97130	-36187	2.00423	349.598
30	1.76404	-1.41422	1.81202	346.785	30	1.97130	-36187	2.00423	349.598	30	1.87262	-64136	1.97941	341.694
35	1.60536	-0.66162	1.73635	337.662	35	1.87262	-64136	1.97941	341.694	35	1.70231	-93782	1.94355	331.149
40	1.38443	-0.89388	1.64793	327.151	40	1.70231	-93782	1.94355	331.149	40	1.44863	-22953	1.90607	319.677
45	1.10282	-1.08586	1.54768	315.444	45	1.44863	-22953	1.90607	319.677	45	1.0774	-48892	1.85580	326.649
50	.77191	-1.21292	1.43772	302.473	50	1.0774	-48892	1.85580	326.649	50	.68686	-68496	1.81958	292.178
55	.41332	-1.25522	1.32152	288.226	55	.68686	-68496	1.81958	292.178	55	.20628	-78699	1.79886	276.585
60	.05700	-1.20232	1.20367	272.714	60	.20628	-78699	1.79886	276.585	60	.30044	-30044	1.76995	265.366
65	-.26308	-1.05678	1.68904	256.21	65	.30044	-30044	1.76995	265.366	65	.78894	-80176	1.80176	244.331
70	-.51494	-.83553	.98147	238.354	70	.78894	-80176	1.80176	244.331	70	.20915	-33805	1.80344	227.897
75	-.67523	-.56810	.88243	226.375	75	.20915	-33805	1.80344	227.897	75	.51263	-94423	1.78315	211.974
80	-.73450	-.29160	.7926	201.653	80	.51263	-94423	1.78315	211.974	80	.66082	-47494	1.72739	195.959
85	-.69957	-.04341	.7092	183.551	85	.66082	-47494	1.72739	195.959	85	.20628	-78699	1.79886	276.585
90	-.59206	•14651	.60992	166.101	90	.20628	-78699	1.79886	276.585	90	.63250	•62054	1.63263	179.279
95	-.44315	•26175	.51468	149.431	95	.63250	•62054	1.63263	179.279	95	.42875	•48747	1.59162	161.161
100	-.28613	•30212	.41611	133.442	100	.42875	•48747	1.59162	161.161	100	.07410	•87447	1.38506	140.849
105	-.14872	•28217	.31896	117.792	105	.07410	•87447	1.38506	140.849	105	.61335	•61335	1.14195	118.241
110	-.05741	•22625	.23116	101.835	110	.61335	•61335	1.14195	118.241	110	.10483	•10483	1.26814	94.725
115	.01480	•16167	.16234	84.771	115	.10483	•10483	1.26814	94.725	115	.38861	•38861	1.25175	72.753
120	.04695	•11205	.12149	67.266	120	.38861	•38861	1.25175	72.753	120	.80886	•80886	1.11064	137.96
125	.06586	•09264	.11366	54.592	125	.80886	•80886	1.11064	137.96	125	.41506	•87707	1.41506	38.303
130	.09051	•10849	.14129	50.165	130	.41506	•87707	1.41506	38.303	130	.26568	•59107	1.39689	25.032
135	.13688	•15553	.20719	48.649	135	.26568	•59107	1.39689	25.032	135	.6640	•29309	1.29987	13.031
140	.21438	•22355	.30973	46.199	140	.6640	•29309	1.29987	13.031	140	.12303	•61778	1.12317	•9.7
145	.32438	•30042	.44185	42.766	145	.12303	•61778	1.12317	•9.7	145	.86110	•21034	•88642	346.273
150	.46078	•37350	.59314	39.327	150	.86110	•21034	•88642	346.273	150	.51661	•37882	•64062	323.748
155	.61196	•43585	.75130	35.459	155	.51661	•37882	•64062	323.748	155	.13101	•48683	•50415	285.062
160	.76332	•48316	.90338	32.333	160	.13101	•48683	•50415	285.062	160	.25346	•54293	•59918	244.975
165	.89978	•51528	1.03689	29.799	165	.25346	•54293	•59918	244.975	165	.59771	•56162	•82017	223.217
170	1.00787	.53461	1.14388	27.943	170	.59771	•56162	•82017	223.217	170	.86870	•55943	•03325	212.761
175	1.07711	.54440	1.20687	26.813	175	.86870	•55943	•03325	212.761	175	-1.04157	•55126	•17846	207.890
180	1.16093	.54732	1.22948	26.434	180	-1.04157	•55126	•17846	207.890	180	-1.10093	•54732	•22948	206.434

KA = 3.5

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT		
0	1.87045	.65267	1.98105	19.236	0	1.87045	.65267	1.98105	19.236		
5	1.87439	.62493	1.97583	18.439	5	1.88683	.62949	1.98338	18.505		
10	1.88369	.54218	1.96617	16.057	10	1.90959	.55945	1.98985	16.329		
15	1.89097	.40617	1.93409	12.123	15	1.94962	.44139	1.99896	12.757		
20	1.88466	.22083	1.89755	6.683	20	1.98921	.27431	2.00808	7.851		
25	1.85029	-.00642	1.8530	359.801	25	2.01277	.05869	2.01363	1.670		
30	1.77240	-.26341	1.79187	351.547	30	2.00126	-.20177	2.01140	354.243		
35	1.63729	-.53238	1.72167	341.988	35	1.93436	-.49837	1.99753	345.553		
40	1.43615	-.79020	1.63919	331.179	40	1.79276	-.81589	1.96968	335.529		
45	1.16838	-.01013	1.54450	319.155	45	1.56154	-.13191	1.92863	324.063		
50	.84395	-.16512	1.43866	305.918	50	1.23400	-.41736	1.87928	311.044		
55	.48423	-.23251	1.32422	291.449	55	.81535	-.63899	1.83960	296.449		
60	.21190	-.06610	1.20525	275.724	60	.32526	-.76351	1.79325	280.450		
65	-.47728	-.84953	1.08696	258.758	65	-.20158	-.76325	1.77474	263.478		
70	-.64976	-.58011	.97442	240.672	70	-.71785	-.62236	1.77408	246.132		
75	-.71790	-.29723	.87114	221.758	75	-.16909	-.34100	1.77973	228.937		
80	-.68783	-.04122	.77730	202.491	80	-.50176	-.94266	1.77311	212.117		
85			.68907	183.430	85	-.67255	-.46429	1.73580	195.514		
90	-.58185	1.19925	1.20221	165.058	90	-.65684	.3965	1.65731	178.629		
95	-.43276	-.27405	.51223	147.656	95	-.45443	.50990	1.54122	160.680		
100	-.27573	-.31435	.41814	131.256	100	-.09089	.89141	1.40870	140.747		
105	-.13985	-.29130	.32313	115.645	105	-.61413	1.14278	1.29734	118.254		
110	-.04197	-.23045	.23424	100.322	110	-.08678	1.24299	1.24602	93.994		
115	.01562	-.16025	.16101	84.432	115	.42380	1.19403	1.26701	70.459		
120	.04344	1.15528	.60221	165.058	120	.85584	1.31896	1.33069	49.973		
125	.05995	-.07922	.09935	52.881	125	1.16165	.75621	1.38610	33.063		
130	.08541	-.08740	.12221	45.662	130	1.31302	.45163	1.38853	18.981		
135	.13630	-.12408	.18431	42.313	135	1.30291	.15011	1.31153	6.572		
140	.22166	-.17801	.28429	38.767	140	1.14381	-.11152	1.14924	354.432		
145	.34187	-.23632	.41560	34.654	145	.86380	-.30913	.91745	340.309		
150	.48949	-.10486	.11350	67.496	150	.50124	-.43316	.66247	319.168		
155	.65159	-.07922	.09935	52.881	155	.C943	-.48768	.49771	281.524		
160	.81253	-.34972	.12221	45.662	160	-.29832	-.48743	.57147	238.532		
165	.95662	-.35989	.10227	20.617	165	-.65250	-.45350	.79462	214.800		
170	1.07011	-.36163	.112957	18.672	170	-.93018	-.48861	1.31597	203.715		
175	1.14254	-.36007	.19794	17.492	175	-.10684	-.37264	1.16789	198.607		
180	1.16742	-.35907	1.22139	17.097	180	-.16742	-.35907	1.22139	197.097		

KA = 3.6

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.76837	.85327	1.96346	25.758	0	1.76837	.85327	1.96346	25.758
5	1.77563	.82495	1.95790	24.919	5	1.78224	.82923	1.96571	24.951
10	1.79471	.74021	1.94136	22.413	10	1.82140	.75653	1.97227	22.556
15	1.81170	.60014	1.91421	18.271	15	1.87844	.63368	1.98244	18.641
20	1.83208	.40767	1.87689	12.545	20	1.94109	.45920	1.99466	13.310
25	1.82190	.16918	1.82974	5.305	25	1.99253	.23300	2.00610	6.670
30	1.76972	-.10397	1.77277	356.638	30	2.01222	-.04179	2.01265	358.816
35	1.65941	-.39428	1.70561	346.634	35	1.97750	-.35680	2.00943	349.772
40	1.47961	-.67805	1.62758	335.380	40	1.86618	-.69672	1.99199	339.527
45	1.22736	-.92696	1.53807	322.938	45	1.66015	-.03832	1.95811	327.977
50	.91106	-1.11147	1.43715	309.341	50	1.34963	-.35096	1.90960	314.972
55	.55161	-1.20596	1.32613	294.580	55	.93741	-.59899	1.85351	309.381
60	.18097	-1.19447	1.20810	278.615	60	.44212	-.74624	1.80134	284.208
65	-.16246	-1.07565	1.08785	261.411	65	-.10089	-1.76227	1.76516	266.723
70	-.44085	-.86525	.97109	243.001	70	-.64170	-1.62921	1.75103	248.502
75	-.62510	-.59476	.86284	223.575	75	-.12167	-1.34764	1.75336	230.229
80	-.70162	-.30585	.76539	203.553	80	-.48229	-.93984	1.75513	212.377
85	-.67581	-.04186	.67710	183.544	85	-.67545	-.44867	1.73454	194.978
90	-.57066	.16172	.59313	164.177	90	-.1.67312	-.96687	1.67446	177.711
95	-.42073	.28475	.50803	145.910	95	-.1.47377	-.54297	1.57061	159.775
100	-.26323	.32585	.41889	128.932	100	-.1.10400	.92019	1.43721	140.189
105	-.12872	.30070	.32769	113.174	105	-.61477	1.15508	1.30350	118.023
110	-.03448	.23692	.23852	98.312	110	-.07288	1.22738	1.22954	93.398
115	.01791	.16132	.16231	83.665	115	-.45012	1.14268	1.22814	68.500
120	.04047	.10118	.10897	68.201	120	.88927	.92982	1.28661	46.277
125	.05330	.07006	.08803	52.735	125	1.19533	.63407	1.35309	27.944
130	.07791	.07088	.10533	42.295	130	1.34031	.30772	1.37519	12.931
135	.13119	.09690	.16309	36.452	135	1.31886	.00057	1.31086	.025
140	.22177	.13585	.26007	31.491	140	1.14598	-.24810	1.17253	347.784
145	.34898	.17455	.39020	26.572	145	.85235	-.41459	.94783	334.061
150	.50413	.20274	.54337	21.908	150	.47641	-.49240	.68654	314.174
155	.67315	.21527	.70673	17.734	155	.06861	-.49087	.49564	277.957
160	.83968	.21247	.86615	14.200	160	-.33355	-.43133	.54525	232.285
165	.98777	.19900	1.00761	11.391	165	-.68923	-.34195	.76939	266.387
170	1.10376	.18187	1.11865	9.357	170	-.96666	-.25200	.99897	194.611
175	1.17750	.16814	1.18945	8.127	175	-.1.14256	-.18669	1.15771	189.280
180	1.20277	.16294	1.21376	7.715	180	-.1.20277	-.16294	1.21376	187.715

KA = 3.07

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.65897	1.05214	1.96448	32.383	0	1.65897	1.05214	1.96448	32.383
5	1.66942	1.02352	1.95821	31.512	5	1.67575	1.02735	1.96565	31.511
10	1.69797	.93763	1.93965	28.908	10	1.72363	.96919	1.96919	28.925
15	1.73628	.79475	1.90952	24.595	15	1.79521	.82566	1.97573	24.683
20	1.77100	.59672	1.86883	18.621	20	1.87801	.98526	1.98526	18.925
25	1.78487	.34865	1.81860	11.553	25	1.95467	.99668	1.99668	11.774
30	1.75859	.66083	1.75965	1.981	30	2.0352	.11864	2.0073	3.389
35	1.67367	-.24972	1.69220	351.514	35	2.0005	-.21472	2.01154	353.872
40	1.51614	-.55895	1.61589	339.763	40	1.91947	-.57735	2.0442	343.266
45	1.28056	-.83706	1.52987	326.829	45	1.74056	-.94528	1.98668	331.494
50	.97354	-1.05205	1.43338	312.780	50	1.45028	-1.28621	1.93847	318.431
55	.61537	-1.17514	1.32652	297.639	55	1.04871	-1.56192	1.88133	3.3.878
60	.23885	-1.18722	1.21160	281.375	60	.55292	-1.73308	1.81915	287.695
65	-.11540	-1.06451	1.0964	263.926	65	-.00155	-1.76610	1.76610	269.950
70	-.40649	-.88179	.97098	245.251	70	-.56265	-1.64076	1.73455	251.672
75	-.60218	-.61126	.85806	225.429	75	-.06788	-1.35694	1.72675	231.798
80	-.68661	-.31687	.75620	204.773	80	-.45394	-.93842	1.73048	212.839
85	-.66436	-.04500	.66588	183.875	85	-.66808	-.43196	1.72310	194.518
90	-.55918	1.6586	.58326	163.478	90	-.67888	.9874	1.68178	176.634
95	-.40752	.29358	.50226	144.231	95	-.48356	.58351	1.59419	158.529
100	-.24879	.33609	.41815	126.513	100	-.10985	.95837	1.46636	139.189
105	-.11518	.30965	.33337	110.464	105	-.61173	1.17742	1.32685	117.454
110	-.02449	.24211	.24334	95.776	110	-.66005	1.22158	1.22255	92.815
115	.02240	.16403	.16555	82.222	115	.46984	1.39874	1.19498	66.848
120	.03901	.10027	.10759	60.742	120	.91037	.84547	1.24242	42.883
125	.04737	.06465	.07997	53.939	125	1.21157	.51385	1.31603	22.983
130	.06924	.05872	.0979	40.390	130	1.34654	.16318	1.35645	6.914
135	.12274	.07424	.14345	31.169	135	1.31240	-.15150	1.32112	353.415
140	.21570	.09784	.23686	24.399	140	1.12719	-.38828	1.19221	34.993
145	.34641	.11612	.36535	18.531	145	.82431	-.52381	.97667	327.566
150	.50499	.11964	.51897	13.328	150	.44599	-.55484	.71186	3.8.793
155	.67650	.10502	.68460	8.824	155	.53708	-.49616	4.9754	274.274
160	.84419	.07499	.84751	5.676	160	-.35979	-.37606	.52041	226.262
165	.94222	.03685	.99290	2.127	165	-.70769	-.22982	.74467	197.971
170	1.10747	.00007	1.10747	0.4	170	-.97725	-.9370	.98168	185.477
175	1.18041	-.22631	1.18C71	358.723	175	-.14728	.2168	1.14728	179.916
180	1.20536	-.03587	1.20589	358.296	180	-1.20536	.3587	1.20589	178.296

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	0	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	
0	1.54494	1.24164	1.98205	38.788	0	1.54494	1.24164	1.98205	38.788	30	1.98205
5	1.55843	1.21312	1.97493	37.898	5	1.56396	1.21652	1.98139	37.877	35	1.98139
10	1.59599	1.12721	1.95391	35.233	10	1.61869	1.14029	1.98011	35.163	40	1.98011
15	1.64897	0.98333	1.91991	30.809	15	1.70197	1.01062	1.97941	30.732	45	1.97941
20	1.70339	0.78203	1.87433	24.660	20	1.80161	0.82471	1.98146	24.597	50	1.98146
25	1.74086	.52690	1.81885	16.839	25	1.90021	.58086	1.98699	16.996	55	1.98699
30	1.74035	.22692	1.755C8	7.429	30	1.97552	.28035	1.99531	8.077	60	1.99531
35	1.68108	-.10174	1.68416	356.537	35	2.00166	-.06959	2.00287	358.0.9	70	2.00287
40	1.54644	-.43489	1.60643	344.293	40	1.95160	-.45395	2.00370	346.9.6	75	2.00370
45	1.32842	-.74148	1.52135	330.831	45	1.80111	-.84822	1.99085	334.782	80	1.99085
50	1.03164	-.98707	1.42779	316.265	50	1.53385	-.21844	1.95890	321.537	85	1.95890
55	.67559	1.13964	1.32484	300.660	55	1.14685	-.52363	1.907.2	316.969	90	1.907.2
60	.29378	-1.17664	1.21276	284.0.19	60	.65517	-1.72094	1.84143	290.842	95	1.84143
65	-.07097	-1.09161	1.09392	266.280	65	.09407	-1.77309	1.77558	273.037	100	1.77558
70	-.37457	-.89802	.97300	247.359	70	-.48271	-1.65699	1.72587	253.758	105	1.72587
75	-.58150	-.62860	.85631	227.229	75	-.00919	-1.37139	1.70269	233.651	110	1.70269
80	-.67345	-.32947	.74972	206.569	80	-.41749	-.94134	1.70158	212.588	115	1.70158
85	-.65459	-.05015	.65601	184.3A4	85	-.65038	-.41741	1.70234	194.193	90	1.70234
90	-.54797	1.6786	.57311	162.968	90	-.67322	.13100	1.67834	175.523	95	1.67834
95	-.39360	.30033	.49509	142.655	95	-.48215	.62742	1.60948	157.056	100	1.60948
100	-.23272	.34454	.41577	124.038	100	-.10617	.00252	1.49287	137.814	105	1.49287
105	-.09935	.31731	.33250	107.386	105	-.60242	.20751	1.34944	116.514	110	1.34944
110	-.01188	.24773	.24801	92.745	110	-.04564	.22325	1.22411	92.137	115	1.22411
115	.02948	.16733	.16991	80.008	115	.48529	.06297	1.16851	65.461	120	1.16851
120	.03970	.10116	.10867	68.574	120	.92090	.76817	1.19923	39.823	125	1.19923
125	.04211	.06222	.07513	55.910	125	.21136	.39914	1.27542	18.237	130	1.27542
130	.06042	.05053	.07876	39.910	130	.33189	.02246	1.33268	0.966	135	1.33268
135	.11206	.05621	.12516	26.638	135	.28298	.30130	1.31708	346.784	140	1.31708
140	.20455	.06473	.21455	17.560	140	.08633	.52748	1.20762	334.1.1	145	1.20762
145	.33512	.06252	.3409C	10.568	145	.76828	.63308	1.09325	326.874	150	1.09325
150	.49285	.04110	.49456	4.767	150	.40252	-.61813	.73764	303.072	155	.73764
155	.66216	-.00103	.66215	359.911	155	.03058	-.50298	.56299	275.468	160	.56299
160	.82629	-.05862	.82837	355.942	160	-.37795	-.32278	.49702	225.498	165	.49702
165	.96997	-.12169	.97758	352.849	165	-.70833	-.12030	.71847	189.639	170	.71847
170	1.08104	-.17827	1.09564	350.636	170	-.96182	-.36159	.96379	176.376	175	.96379
175	1.15697	-.21737	1.17131	349.305	175	-.12073	-.18678	.13619	170.538	180	.13619
180	1.17481	-.23131	1.19736	348.862	180	-.17481	-.23131	1.19736	168.802	185	1.19736

KA = 3.09

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.42617	1.41433	2.00855	44.761	0	1.42617	1.41433	2.00855	44.761
5	1.44252	1.38640	2.00974	43.864	5	1.44686	1.38961	2.00609	43.844
10	1.48863	1.30192	1.97763	41.172	10	1.50678	1.31433	1.99946	41.97
15	1.55565	1.15935	1.94014	36.695	15	1.59929	1.18545	1.99673	36.547
20	1.62914	1.05771	1.86979	30.450	20	1.71281	0.99903	1.98287	35.254
25	1.68975	0.9890	1.82859	22.470	25	1.83038	0.75188	1.97879	22.332
30	1.71490	0.39618	1.75873	12.818	30	1.92964	0.44392	1.98005	12.956
35	1.68161	0.64657	1.68225	1.586	35	1.98378	0.8696	1.98543	2.335
40	1.57058	-0.39198	1.60050	348.905	40	1.96383	-0.32290	1.99023	350.663
45	1.37110	-0.64438	1.51370	334.930	45	1.84272	-0.74270	1.98676	338.648
50	1.08559	-0.91688	1.42098	319.816	50	1.66070	-1.14297	1.96689	324.471
55	0.73255	-1.09913	1.32088	3C3.683	55	1.23155	-1.47984	1.92527	30.9.768
60	0.34605	-1.16197	1.21240	286.584	60	0.74797	-1.70647	1.86319	293.669
65	-0.2891	-1.09590	1.09628	268.489	65	0.18449	-1.78126	1.79C78	275.913
70	-0.34496	-0.91279	0.97580	249.298	70	-0.40379	-1.67751	1.72542	256.466
75	-0.56307	-0.64569	0.85672	228.910	75	-0.94768	-1.39219	1.68413	235.755
80	-0.66231	-0.34279	0.74576	207.364	80	-1.37492	-0.95123	1.67190	214.677
85	-0.64534	-0.05570	0.64783	185.021	85	-1.62396	-0.40893	1.67464	194.133
90	-0.53752	0.16797	0.56315	162.647	90	-1.65711	0.15944	1.66476	174.504
95	-0.37949	0.30489	0.48679	141.221	95	-1.46967	0.67050	1.61539	155.476
100	-0.21556	0.35072	0.41166	121.576	100	-1.09221	1.44902	1.51438	126.156
105	-0.08168	0.32294	0.33311	104.193	105	-0.58522	1.24276	1.7366	115.216
110	0.003C7	0.25191	0.25193	89.3C1	110	-0.02748	1.23268	1.23299	91.277
115	0.3908	0.17917	0.17460	77.067	115	0.49899	1.03571	1.14965	64.276
120	0.04275	0.10284	0.11137	67.428	120	0.92338	0.69988	1.15864	37.161
125	0.3893	0.06195	0.07316	57.854	125	1.19694	0.29327	1.23234	13.767
130	0.05225	0.04582	0.05949	41.246	130	1.29807	-0.11006	1.30273	353.154
135	0.10020	0.04277	0.10895	23.114	135	1.23167	-0.44395	1.30923	340.179
140	0.18957	0.03711	0.19317	11.076	140	1.02381	-0.66095	1.21863	327.155
145	0.31650	0.01513	0.31686	2.737	145	0.71407	-0.73844	1.52273	314.019
150	0.46916	-0.03064	0.47U16	150	-0.34735	-0.67970	0.76331	297.069	
155	0.63160	-0.09471	0.63942	351.C29	155	-0.03289	-0.51053	0.51159	266.313
160	0.78744	-0.18429	0.80872	346.828	160	-0.38923	-0.27285	0.47534	215.031
165	0.92246	-0.27170	0.96164	343.588	165	-0.69246	-0.01650	0.69266	181.365
170	1.02586	-0.34758	1.08315	341.283	170	-0.92188	-0.20916	0.94531	167.217
175	1.09052	-0.39984	1.16123	339.901	175	-1.06427	-0.36284	1.12442	161.174
180	1.21248	-0.41724	1.18815	339.441	180	-1.11248	-0.41724	1.18815	159.441

KA = 4.0

T1						T2								
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	ε	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.30020	1.56439	2.03417	50.269	0	1.30020	1.56439	2.03417	50.269	5	1.32220	1.54100	2.03049	49.370
5	1.31929	1.53761	2.02603	49.370	5	1.38627	1.46836	2.02609	46.666	10	1.45622	1.46644	2.00493	42.155
10	1.37360	1.45622	2.00183	46.672	10	1.48644	1.34545	2.00493	42.155	15	1.96232	1.61196	1.98816	35.228
15	1.45422	1.31756	1.42178	42.178	15	1.61196	1.16377	1.98816	35.228	20	1.90880	1.06196	1.97369	27.755
20	1.54637	1.11903	1.90880	35.891	20	1.74561	.91913	1.97369	27.755	25	1.84315	27.830		
25	1.62997	.866046	1.86435	27.830	25	1.30437	1.30437	1.93341	312.427	30	1.86824	.60928	1.96508	18.062
30	1.60101	.54713	1.76781	18.029	30	1.86824	.60928	1.96508	18.062	35	1.94939	.23797	1.96386	6.966
35	1.67637	.19249	1.68540	18.058	35	1.94939	.23797	1.96386	6.966	40	1.95938	-.18185	1.96780	354.698
40	1.53806	-.18012	1.59824	253.529	40	1.95938	-.18185	1.96780	354.698	45	1.88841	-.62556	1.97035	341.489
45	1.49816	-.53790	1.50767	339.398	45	1.88841	-.62556	1.97035	341.489	50	1.65329	-.05630	1.96192	327.425
50	1.73561	-.84192	1.41266	323.447	50	1.65329	-.05630	1.96192	327.425	55	1.30437	1.42712	1.93341	312.427
55	.72572	-1.05351	1.31484	306.751	55	1.30437	1.42712	1.93341	312.427	60	.83175	-.68677	1.88069	255.248
60	.39627	-1.14268	1.20944	289.126	60	.83175	-.68677	1.88069	255.248	65	.26899	-.78863	1.83874	278.553
65	.01142	-1.09663	1.03666	270.596	65	.26899	-.78863	1.83874	278.553	70	.32768	-.70153	1.73281	259.094
70	-.31709	-.92522	.97805	251.082	70	.32768	-.70153	1.73281	259.094	75	.88596	-.41985	1.67359	238.637
75	-.54653	-.66166	.85819	230.444	75	.88596	-.41985	1.67359	238.637	80	.32927	-.96979	1.64544	216.113
80	-.65209	-.35606	.74384	208.599	80	.32927	-.96979	1.64544	216.113	85	.59182	-.40911	1.64355	194.414
85	-.63826	-.06410	.69147	185.735	85	.59182	-.40911	1.64355	194.414	90	.63395	-.18075	1.64302	173.664
90	-.52919	-.16648	.55361	162.505	90	.63395	-.18075	1.64302	173.664	95	.44775	-.70925	1.61215	153.966
95	-.36576	-.30727	.47770	139.967	95	.44775	-.70925	1.61215	153.966	100	.06846	1.09463	1.52963	134.352
100	-.19297	-.35426	.40591	119.191	100	.06846	1.09463	1.52963	134.352	105	.32600	.55947	1.28058	113.502
105	-.06285	-.25391	.33203	100.313	105	.32600	.55947	1.28058	113.502	110	.25463	.30375	1.24782	90.172
110	-.01974	-.17167	.25391	85.554	110	.25463	.30375	1.24782	90.172	115	.17902	.51359	1.01673	1.13909
115	.05077	-.02510	.29340	73.523	115	.17902	.51359	1.01673	1.13909	120	.52097	.64173	1.12250	36.869
120	.04903	.10441	.11492	65.297	120	.52097	.64173	1.12250	36.869	125	.17159	.19872	1.18633	9.626
125	.03776	.06303	.07347	59.073	125	.17159	.19872	1.18633	9.626	130	.14110	.154815	1.26922	349.521
130	.04538	.04399	.06320	44.110	130	.14110	.154815	1.26922	349.521	135	.03371	.20.916	1.16096	333.539
135	.08821	.03371	.09444	20.916	135	.03371	.20.916	1.16096	333.539	140	.01529	.17287	.94141	1.22545
140	.17219	.02510	.17287	5.075	140	.01529	.17287	.94141	1.22545	145	.29340	.355.0393	.63259	1.04858
145	.29233	-.02510	.29340	145	145	.29340	.355.0393	.63259	1.04858	150	.44597	-.09385	-.73703	290.836
150	.43598	-.09385	.44597	347.852	150	.44597	-.09385	-.73703	290.836	155	.58713	.61663	-.51786	261.966
155	.58713	-.18844	.61663	342.206	155	.58713	-.18844	-.51786	261.966	160	.73016	-.39516	-.32704	209.886
160	.73016	-.29857	.78885	337.760	160	.73016	-.39516	-.32704	209.886	165	.85234	-.40898	.94538	173.196
165	.85234	-.40898	.86320	334.367	165	.85234	-.40898	.94538	173.196	170	.50303	1.07031	1.66221	158.142
170	.94473	-.56610	.15080	330.534	170	.50303	1.15080	1.66221	158.142	175	1.00194	-.56610	.98672	1.11231
175	1.00194	-.56610	.15080	330.534	175	1.00194	-.56610	.98672	1.11231	180	1.02127	-.58828	1.17859	150.357

KA = 4.1

T1						T2					
REAL			IMAGINARY			M.GNITUDE			ARGUMENT		
θ			θ			θ			θ		
φ	REAL	IMAGINARY	φ	REAL	IMAGINARY	φ	REAL	IMAGINARY	φ	REAL	IMAGINARY
0	1.16341	1.68853	2.05053	55.433	0	1.16341	1.68853	2.05053	55.433	54.563	54.563
5	1.18516	1.66348	2.04250	54.532	5	1.18663	1.66745	2.04657	54.532	51.939	51.939
10	1.24745	1.58687	2.01851	51.828	10	1.25461	1.60231	2.03506	51.828	47.527	47.527
15	1.34151	1.45487	1.97897	47.322	15	1.36206	1.48786	2.01716	47.322	41.293	41.293
20	1.45230	1.26303	1.92469	41.013	20	1.49915	1.31658	1.99521	41.013	33.218	33.218
25	1.55916	1.00891	1.85712	32.906	25	1.65045	1.06076	1.97282	32.906	23.370	23.370
30	1.63680	69543	1.77841	23.019	30	1.79415	.77528	1.95449	11.911	11.911	11.911
35	1.65802	33408	1.69135	11.392	35	1.90226	.40124	1.94412	359.1-4	359.1-4	359.1-4
40	1.59805	-0.05281	1.59892	358.107	40	1.94251	-.03039	1.94275	345.247	345.247	345.247
45	1.44020	-4.3205	1.50361	343.301	45	1.88238	-.49571	1.94655	330.561	330.561	330.561
50	1.18184	-76276	1.40661	327.162	50	1.69525	-.95674	1.94659	315.693	315.693	315.693
55	83863	-1.00295	1.30737	309.901	55	1.36793	-1.36347	1.93139	217.838	217.838	217.838
60	44523	-1.11863	1.20398	291.703	60	.90779	-1.65982	1.89185	298.675	298.675	298.675
65	5087	-1.09334	1.09453	272.664	65	.34737	-1.79344	1.82677	280.962	280.962	280.962
70	29017	-93482	97882	252.755	70	-.25599	-1.72792	1.74668	261.573	261.573	261.573
75	53125	-67596	85974	231.835	75	-.82679	-1.45387	1.67252	243.374	243.374	243.374
80	64543	-36871	74332	209.738	80	-.1.28466	-.99736	1.62590	217.838	217.838	217.838
85	63282	-0.07185	63689	186.478	85	-.1.55769	-.41920	1.61311	195.062	195.062	195.062
90	52028	16378	54545	162.526	90	-1.60444	.19308	1.61602	173.138	173.138	173.138
95	35298	30768	46826	138.923	95	-1.41893	.74134	1.60092	152.415	152.415	152.415
100	18073	35545	39876	116.951	100	-1.03626	.1.13676	1.53823	132.352	132.352	132.352
105	4372	32626	32918	97.633	105	-.52507	1.31864	1.41934	111.712	111.712	111.712
110	3733	25331	25605	81.616	110	.02702	1.26686	1.26715	88.778	88.778	88.778
115	6393	17125	18280	69.528	115	.53174	1.00502	1.13702	62.118	62.118	62.118
120	55519	10519	11879	62.314	120	.91712	.59378	1.09256	32.926	32.926	32.926
125	3865	66476	67541	59.170	125	1.13915	.11662	1.14511	5.845	5.845	5.845
130	4028	44442	55997	47.797	130	1.18588	-.33779	1.23305	344.161	344.161	344.161
135	7707	28662	8221	20.370	135	1.07425	-.69253	1.27813	327.192	327.192	327.192
140	15387	-0.00082	15387	359.696	140	.84169	-.89500	1.22861	313.242	313.242	313.242
145	26452	-0.05777	27575	347.680	145	.53543	-.92359	1.06756	30.1.1.2	30.1.1.2	30.1.1.2
150	39566	-14751	42227	339.553	150	.20247	-.78786	.81346	284.413	284.413	284.413
155	53147	-26552	59411	333.454	155	-.11778	-.52385	.53693	257.328	257.328	257.328
160	65751	-39904	76913	328.747	160	-.39738	-.18565	.43861	2.5.044	2.5.044	2.5.044
165	76298	-53041	92923	325.194	165	-.62009	.16446	.64153	165.146	165.146	165.146
170	84122	-64094	1.05757	322.696	170	-.77916	.46597	.90786	149.119	149.119	149.119
175	88895	-71450	1.14350	321.209	175	-.87369	.66885	1.10632	142.564	142.564	142.564
180	90495	-74628	1.16917	320.716	180	-.90495	.74028	1.16917	145.716	145.716	145.716

KA = 4.2

		T1			T2				
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.01224	1.78620	2.05308	60.460	1.01224	1.78620	2.05308	60.460	
5	1.03663	1.76342	2.04555	59.615	i.03686	1.76831	2.04988	59.615	
10	1.10695	1.69320	2.02293	56.825	1.10929	1.71225	2.04018	57.063	
15	1.21445	1.57045	1.98524	52.285	1.22482	1.61132	2.02399	52.760	
20	1.34418	1.38873	1.93272	45.934	1.37443	1.45570	2.00203	46.645	
25	1.47498	1.14313	1.86610	37.776	1.54339	1.23466	1.97647	38.659	
30	1.58040	.83389	1.78690	27.818	30	1.71016	.93971	1.95133	28.788
35	1.63118	.47017	1.69759	16.079	35	1.84616	.56863	1.93175	17.119
40	1.59968	.07289	1.60134	2.609	40	1.91750	.12977	1.92188	3.872
45	1.46597	-.32474	1.50151	347.509	45	1.88893	-.35421	1.92185	349.379
50	1.22440	-.68011	1.40061	330.949	50	1.73038	-.84461	1.92551	333.983
55	.88877	-.94793	1.29941	313.155	55	1.42508	-1.28842	1.92117	317.883
60	.49367	-.109009	1.19666	294.364	60	.97770	-1.62448	1.89600	301.042
65	.09033	-.108621	1.08996	274.754	65	.41980	-1.79412	1.84258	283.170
70	-.26337	-.94147	.97761	254.372	70	-.18998	-1.75467	1.76492	263.821
75	-.51658	-.68832	.86061	233.112	75	-.77267	-1.49271	1.68083	242.632
80	-.63893	-.38041	.74360	210.769	80	-.124262	-1.03287	1.61584	219.734
85	-.62893	-.07953	.63394	187.207	85	-.1.52528	-.43876	1.58713	196.048
90	-.51401	-.16030	.53843	162.680	90	-.1.57477	.19607	1.58693	172.903
95	-.34165	-.30649	.45898	138.105	95	-.1.38599	.76565	1.58341	151.083
100	-.16452	-.35426	.39060	114.911	100	-.99723	.1.17378	1.54021	130.351
105	-.02510	-.32383	.32480	94.433	105	-.48231	.1.35485	1.43814	109.595
110	.05503	-.25003	.25601	77.588	110	.06591	.1.28767	1.28936	87.070
115	.07787	-.16864	.18576	65.214	115	.55573	.99891	1.14303	60.909
120	.06381	.10471	.12262	58.644	120	.91503	.55491	1.07014	31.234
125	.04152	.06654	.07843	58.035	125	1.10332	.04681	1.10431	2.429
130	.03733	.04645	.05959	51.208	130	1.11506	-.43002	1.19511	338.911
135	.06760	.02684	.07273	21.652	135	.97493	-.79386	1.25726	320.845
140	.13592	-.01169	.13642	355.085	140	.72742	-.99010	1.22860	306.305
145	.23485	-.08304	.24910	340.527	145	.42442	-.99795	1.38445	293.040
150	.35045	-.19133	.39928	331.367	150	.11401	-.83012	.83792	277.820
155	.46733	-.33007	.57214	324.767	155	-.15724	-.52722	.55310	252.451
160	.57260	-.48421	.74988	319.781	160	-.39745	-.14847	.42427	200.483
165	.65783	-.63393	.91357	316.060	165	-.56865	.23891	.61680	157.211
170	.71907	-.75877	1.04537	313.461	170	-.68288	.57019	.88964	140.139
175	.75546	-.84138	1.13077	311.920	175	-.74699	.79222	1.08885	133.317
180	.76748	-.87025	1.16033	311.409	180	-.76748	.87025	1.16033	131.409

		T1		T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	.84434	1.85917	2.04192	65.575	0	.84434	1.85917	2.04192	65.575
5	.87139	1.83912	2.03511	64.648	5	.87075	1.84511	2.04025	64.736
10	.94977	1.77664	2.01458	61.871	10	.94869	1.80003	2.03473	62.269
15	1.07096	1.66537	1.98000	57.256	15	1.07393	1.71571	2.02410	57.956
20	1.22011	1.49680	1.93108	50.815	20	1.23801	1.57986	2.00715	51.917
25	1.37576	1.26334	1.86782	42.561	25	1.42671	1.37851	1.98388	44.016
30	1.51039	.96233	1.79091	32.503	30	1.61848	1.09943	1.95658	34.188
35	1.59274	.60027	1.70210	20.650	35	1.78404	.73659	1.93012	22.435
40	1.59222	.19628	1.60427	7.027	40	1.88774	.29518	1.91067	8.887
45	1.48539	-.21678	1.50112	351.697	45	1.89154	-.20395	1.90250	353.846
50	1.26327	-.59476	1.39628	334.799	50	1.76184	-.72186	1.90399	337.720
55	.93744	-.88917	1.29206	316.514	55	1.47834	-.1.20276	1.90581	320.869
60	.54214	-1.05764	1.18850	297.139	60	1.04304	-1.58034	1.89352	3C3.425
65	.13048	-1.07562	1.08350	276.917	65	.48671	-1.78923	1.85425	285.216
70	-.23597	-.94540	.97441	255.986	70	-.13038	-.77995	1.78472	265.811
75	-.50190	-.69878	.86035	234.312	75	-.72540	-.53395	1.69682	244.691
80	-.63318	-.39095	.74415	211.693	80	-.1.20757	-.1.7465	1.61612	221.651
85	-.62642	-.08678	.63240	187.888	85	-.1.49762	-.46608	1.56847	197.287
90	-.50948	.15650	.53297	162.924	90	-1.54706	.19056	1.55875	172.978
95	-.33210	.30422	.45038	137.509	95	-1.35146	.78201	1.56140	149.944
100	-.14990	.35126	.38191	113.111	100	-.95307	1.20447	1.53594	128.354
105	-.00766	.31906	.31915	91.376	105	-.43178	1.38720	1.45285	167.289
110	.C7214	.24423	.25466	73.544	110	.11351	1.30780	1.31272	85.039
115	.09198	.16378	.18784	60.680	115	.58724	.99562	1.15591	59.467
120	.07346	.10269	.12626	54.421	120	.91727	.52312	1.05595	29.696
125	.04623	.06782	.08228	55.717	125	1.06722	-.61190	1.06728	359.361
130	.03674	.04934	.06151	53.327	130	1.03901	-.50771	1.15642	333.958
135	.06042	.02757	.06641	24.525	135	.86619	-.87844	1.23367	314.598
140	.11937	-.01808	.12073	351.389	140	.60130	-.06814	1.22576	299.377
145	.20482	-.10145	.22857	333.650	145	.30149	-.65728	1.09942	285.916
150	.30229	-.22548	.37712	323.280	150	.01602	-.86178	.86193	271.065
155	.39709	-.38179	.55085	316.125	155	-.22168	-.52646	.57122	247.165
160	4.7824	-.55323	.73129	310.842	160	-.39665	-.11486	.41294	196.150
165	.54011	-.71813	.89857	306.947	165	-.51018	.30195	.59284	149.381
170	.58180	-.85465	1.03389	304.245	170	-.57420	.65628	.87201	131.184
175	.60520	-.94457	1.12182	302.648	175	-.60422	.89291	1.57813	124.086
180	.61266	-.97593	1.15230	302.119	180	-.61266	.97593	1.15230	122.119

KA = 4.4

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	-65933	1.91072	2.02128	70.962	0
5	.68904	1.89375	2.01520	70.006	5
10	.77551	1.84005	1.99680	67.146	10
15	.91054	1.74200	1.96562	62.404	15
20	1.07955	1.58898	1.92101	55.808	20
25	1.26090	1.37065	1.86241	47.388	25
30	1.42618	1.08125	1.78972	37.168	30
35	1.54213	.72434	1.70377	25.159	35
40	1.57515	.31689	1.60671	11.375	40
45	1.49808	-.10888	1.50203	355.843	45
50	1.29829	-.50758	1.39398	338.647	50
55	.98470	-.82756	1.28628	319.956	55
60	.59091	-1.02211	1.18963	300.034	60
65	.17173	-1.06222	1.07601	279.183	65
70	-.20750	-.94706	.96953	257.642	70
75	-.48677	-.70751	.85878	235.472	75
80	-.62782	-.40025	.74455	212.519	80
85	-.62508	-.09327	.63200	188.487	85
90	-.50666	.15291	.52923	163.206	90
95	-.32451	.30148	.44294	137.107	95
100	-.13720	.34707	.37320	111.569	100
105	.00814	.31247	.31258	88.507	105
110	.08813	.23624	.25215	69.542	110
115	.10575	.15673	.18907	55.993	115
120	.08373	.09887	.12956	49.742	120
125	.05257	.06809	.08602	52.330	125
130	.03854	.05233	.06499	53.632	130
135	.05588	.02990	.06337	28.150	135
140	.10496	-.02089	.1C702	348.746	140
145	.17557	-.11374	.2C919	327.j64	145
150	.25278	-.25038	.35579	315.273	150
155	.32283	-.42062	.53022	307.506	155
160	.37701	-.60551	.71328	301.908	160
165	.41282	-.78190	.88419	297.832	165
170	.43277	-.92705	.02308	295.024	170
175	.44176	-.02224	1.11361	293.371	175
180	.44418	-1.05537	1.14503	292.825	180
				-.44418	
				-1.05537	

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	•65933	1.91072	2.02128	70.962	0
5	•68904	1.89375	2.01520	70.006	5
10	•77551	1.84005	1.99680	67.146	10
15	•91054	1.74200	1.96562	62.404	15
20	1.07955	1.58898	1.92101	55.808	20
25	1.26090	1.37065	1.86241	47.388	25
30	1.42618	1.08125	1.78972	37.168	30
35	1.54213	.72434	1.70377	25.159	35
40	1.57515	.31689	1.60671	11.375	40
45	1.49808	-.10888	1.50203	355.843	45
50	1.29829	-.50758	1.39398	338.647	50
55	.98470	-.82756	1.28628	319.956	55
60	.59091	-1.02211	1.18963	300.034	60
65	.17173	-1.06222	1.07601	279.183	65
70	-.20750	-.94706	.96953	257.642	70
75	-.48677	-.70751	.85878	235.472	75
80	-.62782	-.40025	.74455	212.519	80
85	-.62508	-.09327	.63200	188.487	85
90	-.50666	.15291	.52923	163.206	90
95	-.32451	.30148	.44294	137.107	95
100	-.13720	.34707	.37320	111.569	100
105	.00814	.31247	.31258	88.507	105
110	.08813	.23624	.25215	69.542	110
115	.10575	.15673	.18907	55.993	115
120	.08373	.09887	.12956	49.742	120
125	.05257	.06809	.08602	52.330	125
130	.03854	.05233	.06499	53.632	130
135	.05588	.02990	.06337	28.150	135
140	.10496	-.02089	.1C702	348.746	140
145	.17557	-.11374	.2C919	327.j64	145
150	.25278	-.25038	.35579	315.273	150
155	.32283	-.42062	.53022	307.506	155
160	.37701	-.60551	.71328	301.908	160
165	.41282	-.78190	.88419	297.832	165
170	.43277	-.92705	.02308	295.024	170
175	.44176	-.02224	1.11361	293.371	175
180	.44418	-1.05537	1.14503	292.825	180
				-.44418	
				-1.05537	

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	•65933	1.91072	2.02128	70.962	0
5	•68904	1.89375	2.01520	70.006	5
10	•77551	1.84005	1.99680	67.146	10
15	•91054	1.74200	1.96562	62.404	15
20	1.07955	1.58898	1.92101	55.808	20
25	1.26090	1.37065	1.86241	47.388	25
30	1.42618	1.08125	1.78972	37.168	30
35	1.54213	.72434	1.70377	25.159	35
40	1.57515	.31689	1.60671	11.375	40
45	1.49808	-.10888	1.50203	355.843	45
50	1.29829	-.50758	1.39398	338.647	50
55	.98470	-.82756	1.28628	319.956	55
60	.59091	-1.02211	1.18963	300.034	60
65	.17173	-1.06222	1.07601	279.183	65
70	-.20750	-.94706	.96953	257.642	70
75	-.48677	-.70751	.85878	235.472	75
80	-.62782	-.40025	.74455	212.519	80
85	-.62508	-.09327	.63200	188.487	85
90	-.50666	.15291	.52923	163.206	90
95	-.32451	.30148	.44294	137.107	95
100	-.13720	.34707	.37320	111.569	100
105	.00814	.31247	.31258	88.507	105
110	.08813	.23624	.25215	69.542	110
115	.10575	.15673	.18907	55.993	115
120	.08373	.09887	.12956	49.742	120
125	.05257	.06809	.08602	52.330	125
130	.03854	.05233	.06499	53.632	130
135	.05588	.02990	.06337	28.150	135
140	.10496	-.02089	.1C702	348.746	140
145	.17557	-.11374	.2C919	327.j64	145
150	.25278	-.25038	.35579	315.273	150
155	.32283	-.42062	.53022	307.506	155
160	.37701	-.60551	.71328	301.908	160
165	.41282	-.78190	.88419	297.832	165
170	.43277	-.92705	.02308	295.024	170
175	.44176	-.02224	1.11361	293.371	175
180	.44418	-1.05537	1.14503	292.825	180
				-.44418	
				-1.05537	

KA = 4.5

T1						T2								
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-45904	1.94471	1.99815	76.719	0	.45904	1.94471	1.99815	76.719	5	.49025	1.93892	1.99994	75.810
5	-49135	1.93103	1.99256	75.724	5	.49025	1.93892	1.99994	75.810	10	.58277	1.91780	2.00439	73.097
10	-58579	1.88682	1.97566	72.752	10	.58277	1.91780	2.00439	73.097	15	.73279	1.87044	2.00886	68.606
15	-73457	1.80318	1.94706	67.835	15	.73279	1.87044	2.00886	68.606	20	.93241	1.78008	2.00950	62.354
20	-92352	1.66744	1.90611	61.020	20	.93241	1.78008	2.00950	62.354	25	1.16758	1.62656	2.03224	54.328
25	-1.13106	1.45651	1.85202	52.358										
30	1.32803	1.19140	1.78413	41.896	30	1.41616	1.39008	1.98439	44.468	35	1.64680	1.05645	1.95654	32.681
35	1.47930	.84252	1.70240	29.663	35	1.64680	1.05645	1.95654	32.681	40	1.81990	.62333	1.92368	18.907
40	1.54821	.43439	1.60800	15.673	40	1.81990	.62333	1.92368	18.907	45	1.89146	.10631	1.89444	3.217
45	1.50370	-.00171	1.50370	359.935	45	1.89146	.10631	1.89444	3.217	50	1.82056	-.45688	1.87702	34.5.912
50	1.32910	-.41941	1.39371	342.486	50	1.82056	-.45688	1.87702	34.5.912	55	1.57960	-1.06638	1.87295	327.498
55	1.03032	-.76402	1.28269	323.442										
60	.63990	-.98435	1.17406	303.027	60	1.16535	-1.46633	338.476		65	.60749	-1.75771	1.87361	
65	.21418	-.04675	1.06844	281.564	65	.60749	-1.75771	1.87361		70	-.02943	-1.81631	1.85973	289.066
70	-.17772	-.94697	.96350	259.371	70	-.02943	-1.81631	1.85973		75	-.65329	-1.61165	1.81655	269.072
75	-.47085	-.71477	.85592	236.626	75	-.65329	-1.61165	1.81655		80	-.1.16134	-1.16113	1.64223	247.935
80	-.62251	-.40830	.74446	213.261	80	-.1.16134	-1.16113	1.64223		85	-.46350	-.53355	1.55772	224.995
85	-.62461	-.09872	.63236	188.981										200.030
90	-.50534	.15062	.52714	163.465	90	1.50571	.16085	1.51428		95	-.28582	.79290	1.51063	148.340
95	-.31879	.29890	.43700	136.844	95	1.50571	.16085	1.51428		100	-.85623	1.24376	1.50999	124.544
100	-.12651	.34234	.36496	110.281	100	-.85623	1.24376	1.50999		105	-.31181	1.43273	1.46627	102.278
105	.02206	.30463	.30542	85.859	105	-.31181	1.43273	1.46627		110	.23364	1.33557	1.35557	85.075
110	.10263	.22645	.24862	65.619	110	.23364	1.33557	1.35557		115	.67518	.98655	1.19547	55.613
115	.11872	.14763	.18945	51.194										
120	.09418	.09310	.13243	44.671	120	.94044	.47014	1.51514		125	1.00283	-.10353	1.00816	26.561
125	.06017	.56886	.68995	48.312	125	1.00283	-.10353	1.00816		130	.88182	-.62253	1.07942	354.116
130	.04256	.05468	.06929	52.106	130	.88182	-.62253	1.07942		135	.63180	-.99571	1.17925	324.779
135	.05407	.03291	.06330	31.330	135	.63180	-.99571	1.17925		140	.32423	-.1.16740	1.21159	302.396
140	.09313	-.02106	.09548	347.255	140	.32423	-.1.16740	1.21159		145	.02858	-.1.12276	1.12312	285.522
145	.14796	-.12671	.19795	320.793										
150	.20328	-.26650	.33517	307.335	150	-.20298	-.88484	.90782		155	-.34418	-.50571	.61172	257.080
155	.24647	-.44660	.51010	298.894	155	-.34418	-.50571	.61172		160	-.39572	-.05474	.39949	187.876
160	.27139	-.64056	.69568	292.961	160	-.39572	-.05474	.39949		165	-.37995	.39351	.54750	133.995
165	.27900	-.82426	.87020	288.700	165	-.37995	.39351	.54750		170	-.33120	.76999	.83820	113.274
170	.27548	-.97452	1.01271	285.785	170	-.33120	.76999	.83820		175	-.28466	1.01952	1.05850	115.597
180	.26593	-.1.0675	1.13825	283.511	180	-.26593	1.13825	1.13825						

KA = 4.6

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ			θ			θ			θ		
ε	REAL	IMAGINARY	REAL	IMAGINARY	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	REAL	IMAGINARY	ARGUMENT
0	-24742	1.96455	1.98006	82.822	0	-24742	1.96455	1.98006	82.822	0	82.822
5	.28216	1.95428	1.97455	81.784	5	.28133	1.96258	1.98264	81.842	5	81.842
10	.38414	1.91993	1.95798	78.686	10	.38202	1.95265	1.98967	78.935	10	78.935
15	.54610	1.85142	1.93028	73.566	15	.54584	1.92296	1.99893	74.153	15	74.153
20	.75450	1.73413	1.89116	66.487	20	.76503	1.85515	2.00670	67.590	20	67.590
25	.98805	1.55222	1.84001	57.522	25	.1.02554	1.72661	2.00821	59.291	25	59.291
30	1.21707	1.29347	1.77664	46.743	30	1.30481	1.51422	1.99885	49.248	30	49.248
35	1.40474	0.95494	1.69859	34.208	35	1.57039	1.19981	1.97628	37.381	35	37.381
40	1.51138	.54851	1.60783	19.947	40	1.78052	.77695	1.94265	23.575	40	23.575
45	1.50185	.10414	1.50545	3.966	45	1.88803	.25787	1.90556	7.777	45	7.777
50	1.35517	-.33102	1.39501	346.273	50	1.84803	-.32132	1.87576	350.137	50	350.137
55	1.07375	-.69936	1.28143	326.923	55	1.62893	-.89973	1.86089	331.086	55	331.086
60	.68871	-.94515	1.16946	306.080	60	1.22462	-1.39754	1.817	311.227	60	311.227
65	.25762	-1.02990	1.06163	284.044	65	.66419	-1.72926	1.85243	291.011	65	291.011
70	-.14661	-.94564	.95694	261.187	70	.01469	-1.82319	1.82325	276.462	70	276.462
75	-.45394	-.72087	.85189	237.801	75	-.62638	-1.64239	1.75779	249.124	75	249.124
80	-.61690	-.41515	.74358	213.939	80	-.1.14933	-1.20082	1.66220	226.255	80	226.255
85	-.62463	-.10292	.63305	189.357	85	-.1.45774	-.56811	1.56453	201.292	85	201.292
90	-.50516	.14825	.52646	163.644	90	-1.49426	*14067	1.50086	174.622	90	174.622
95	-.31469	.29703	.43273	136.653	95	-1.25802	.78916	1.48505	147.900	95	147.900
100	-.11770	.33766	.35759	109.217	100	-.86738	1.25153	1.48936	122.827	100	122.827
105	.03402	.29608	.29803	83.445	105	-.24606	1.44267	1.46350	99.679	105	99.679
110	.11539	.21526	.24424	61.808	110	*30337	1.33762	1.37159	77.222	110	77.222
115	.13051	.13666	.18896	46.319	115	.73028	.97482	1.21803	53.162	115	53.162
120	.10432	.08528	.13474	39.264	120	*.96192	*44342	1.05926	24.749	120	24.749
125	.06856	.06373	.09361	42.911	125	*.97706	-.14063	1.48713	351.810	125	351.810
130	.04841	.05571	.07380	49.011	130	*.80498	-.66177	1.04208	320.576	130	320.576
135	.05483	.03576	.06546	33.116	135	*.51175	-1.02819	1.4851	296.461	135	296.461
140	.08404	-.01951	.08628	346.930	140	*.17940	-1.18633	1.19982	278.599	140	278.599
145	.12264	-.12315	.17380	314.883	145	-.11572	-1.12526	1.13120	264.129	145	264.129
150	.15503	-.27437	.31514	299.468	150	-.31974	-.87219	92895	249.867	150	249.867
155	.16995	-.45988	.49028	290.282	155	-.41022	-.48230	63317	229.617	155	229.617
160	.16405	-.65809	.67823	283.998	160	-.39634	-.62620	39721	183.782	160	183.782
165	.14200	-.84444	.85629	279.546	165	-.31178	.42224	52488	126.442	165	126.442
170	.11386	-.99593	.1.00242	276.522	170	-.21294	.79604	82151	164.392	170	164.392
175	.09105	-1.09446	1.09824	274.755	175	-.11549	1.04261	1.04898	96.321	175	96.321
180	.08235	-1.12859	1.13159	274.173	180	-.68235	1.12859	1.13159	94.173	180	94.173

KA = 4.7

		T1		T2			
		REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	
0	.02995	1.97238	1.97261	89.130	0	.C29995	1.97238
5	.06685	1.96558	1.96671	88.352	5	.C6636	1.97376
10	.17555	1.94125	1.94917	84.833	10	.17468	1.97372
15	.34952	1.88827	1.92035	79.513	15	.35152	1.95999
20	.57609	1.79017	1.88058	72.162	20	.58950	1.91321
25	.83455	1.62849	1.82988	62.866	25	.87481	1.80891
30	1.09505	1.38775	1.76776	51.724	30	1.18474	1.62115
35	1.31934	1.06159	1.69341	38.822	35	1.48585	1.32806
40	1.46481	.65895	1.60620	24.221	40	1.73432	.91909
45	1.49218	.20821	1.50663	7.944	45	1.87965	.40264
50	1.37582	-.24296	1.39711	349.985	50	1.87264	-.18743
55	1.11427	-.63416	1.28209	330.354	55	1.67723	-.79036
60	.73671	-.90510	1.16702	309.144	60	1.28395	-.1.32210
65	.30165	-1.01218	1.05617	286.595	65	.72095	-.1.69208
70	-.11432	-.94351	.95041	263.091	70	.05772	-.1.82093
75	-.43593	-.72610	.84691	239.321	75	-.60251	-.1.66509
80	-.61069	-.42091	.74169	214.576	80	-.1.14239	-.1.23476
85	-.62467	-.10581	.63357	189.613	85	-.1.45843	-.60003
90	-.50562	14785	.52679	163.700	90	-.1.48635	.11958
95	-.31175	.29628	.4318	156.458	95	-.1.23540	1.49415
100	-.11048	.33353	.3515	108.328	100	-.76115	.78090
105	.04411	.28731	.2908	81.272	105	-.17984	1.25162
110	.12624	.20309	.23913	58.136	110	-.37632	1.44289
115	.14070	.12406	.18759	41.403	115	.79042	.1.32997
120	.11360	.07542	.13636	33.582	120	.98900	.41335
125	.07710	.05848	.09677	37.177	125	.95631	-.17468
130	.05553	.05493	.07811	44.692	130	.73182	-.9068
135	.05778	.03774	.06902	33.151	135	.39376	-.04376
140	.07769	-.01705	.07954	347.623	140	.03518	-.1.1557
145	.10114	-.12187	.15773	309.408	145	-.26041	-.1.10605
150	.10926	-.27467	.29560	291.691	150	-.43739	-.84146
155	.09529	-.46086	.47161	281.682	155	-.47722	-.44835
160	.05788	-.65819	.66073	275.025	160	-.39767	-.00261
165	.00554	-.84222	.84223	270.377	165	-.24397	-.44005
170	-.04771	-.99079	.99194	267.243	170	-.07469	-.80118
175	-.08707	-.08692	1.09341	265.420	175	.05386	1.03787
180	-.10155	-1.12014	1.12474	264.820	180	.10155	1.12014

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T1						T2					
e	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	
0	-1.18724	1.96861	1.97750	95.433	0	-1.18724	1.96861	1.97750	95.433	0	
5	-1.14862	1.96528	1.97089	94.325	5	-1.14868	1.97283	1.97844	94.316	5	
10	-0.03440	1.95107	1.95137	91.010	10	-0.03452	1.98133	1.98163	90.998	10	
15	-0.14976	1.91390	1.91975	85.526	15	-0.15306	1.98175	1.98765	85.584	15	
20	.39236	1.83561	1.87707	77.935	20	.40725	1.95426	1.99624	78.228	20	
25	.67370	1.69522	1.82418	68.327	25	.71506	1.87315	2.00499	69.106	25	
30	.96411	1.47405	1.76134	56.813	30	1.05408	1.71022	2.03897	58.353	30	
35	1.22425	1.16219	1.68804	43.510	35	1.39034	1.44021	2.0181	46.059	35	
40	1.40883	1.76540	1.60332	28.515	40	1.67812	1.04834	1.97866	31.993	40	
45	1.47438	.31021	1.50666	11.882	45	1.86346	.53896	1.93983	16.131	45	
50	1.39039	-.15552	1.39906	353.618	50	1.89245	-.05702	1.89331	358.274	50	
55	1.15103	-.56872	1.28387	333.706	55	1.72387	-.67903	1.85279	338.511	55	
60	.78313	-.86449	1.16646	312.173	60	1.34411	-1.24136	1.82965	317.276	60	
65	.34572	-.99392	1.05233	289.180	65	.77975	-1.64701	1.82226	295.334	65	
70	-.08112	-.94090	.94439	265.072	70	.10242	-1.80971	1.81261	273.239	70	
75	-.41679	-.73077	.84127	240.302	75	-.57871	-1.67922	1.77614	250.985	75	
80	-.60359	-.42581	.73867	215.201	80	-.13802	-1.26179	1.69918	227.952	80	
85	-.62428	-.10747	.63346	189.768	85	-.146403	-.62768	1.59291	203.206	85	
90	-.50617	1.48887	.52761	163.611	90	-1.49072	.09936	1.49403	176.187	90	
95	-.30945	.29683	.42880	136.193	95	-.21899	.76973	1.44167	147.733	95	
100	-.10447	.33026	.34639	107.554	100	-.71969	1.24514	1.43817	120.028	100	
105	.05250	.27873	.28363	79.333	105	-.11603	1.43375	1.43838	94.627	105	
110	.13510	.19035	.23342	54.636	110	.44952	1.31179	1.38667	71.085	110	
115	.14898	.11020	.18531	36.490	115	.85310	.92629	1.25929	47.355	115	
120	.12146	.06375	.13718	27.692	120	1.02025	.37791	1.08799	26.325	120	
125	.08513	.05108	.09928	30.963	125	.94056	-.20767	.96324	34.549	125	
130	.06324	.05207	.08192	39.470	130	.66389	-.71163	.97278	31.037	130	
135	.06242	.03832	.07324	31.546	135	.28079	-.64370	1.08082	28.058	135	
140	.07392	-.01440	.07531	348.974	140	-.10455	-1.16146	1.16615	26.4856	140	
145	.08082	-.11772	.14280	304.471	145	-.40141	-1.06513	1.13826	24.9355	145	
150	.06707	-.26827	.27652	150	-.55243	-.79216	.96576	23.5169	150		
155	.02449	-.45038	.45105	155	-.54297	-.40358	.67624	21.6589	155		
160	-.04418	-.64158	.64310	273.112	160	-.39939	.03252	.40071	17.5345	160	
165	-.12653	-.81818	.82791	266.261	165	-.17822	.44768	.48185	11.177	165	
170	-.20460	-.95956	.98113	261.209	170	.05000	.78597	.78756	86.360	170	
175	-.26030	-.05047	1.08224	256.083	175	.21861	1.05572	1.32921	77.736	175	
180	-.28047	-1.08177	1.11754	255.465	180	.26047	1.08177	1.11754	75.465	180	

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-39838	1.95185	1.94209	101.536	0	-39838	1.95185	1.99209	101.536
5	-35858	1.95202	1.98468	100.409	5	-35894	1.95855	1.99117	100.385
10	-24042	1.94807	1.96285	97.036	10	-24100	1.97461	1.98927	96.958
15	-04846	1.92709	1.92770	91.441	15	-04632	1.98788	1.98842	91.335
20	-20730	1.86935	1.88081	83.672	20	-21993	1.97846	1.99065	83.657
25	.50858	1.75149	1.82383	73.808	25	.54628	1.91991	1.99611	74.117
30	.82639	1.55162	1.75796	61.960	30	.91143	1.78216	2.00170	62.914
35	1.12073	1.25618	1.68346	48.261	35	1.28144	1.53681	2.07077	50.178
40	1.34389	.86753	1.59958	32.844	40	1.60902	1.16495	35.905	1.98545
45	1.44828	.40997	1.50519	15.805	45	1.83671	.66653	1.9531	19.945
50	1.39828	-.06873	1.39997	357.186	50	1.90541	.06905	1.90665	2.075
55	1.18331	-.50301	1.28578	336.970	55	1.76792	-.56805	1.85694	342.187
60	.82725	-.82332	1.16713	315.136	60	1.40546	-.1.15702	1.82045	320.538
65	.38926	-.97521	1.05003	291.760	65	.84214	-.52572	1.80431	297.823
70	-.04732	-.93801	.93922	267.112	70	.15122	-.79087	1.79724	274.827
75	-.39656	-.73515	.83529	241.656	75	.55221	-.68549	1.77365	251.860
80	-.59536	-.43056	.73452	215.848	80	.13367	-.28178	1.71119	228.509
85	-.62304	-.10820	.63237	189.852	85	.47274	-.65010	1.60984	203.818
90	-.50630	15114	.52838	163.379	90	-.49769	.08165	1.49991	176.880
95	-.30728	.29869	.42853	135.812	95	-.20939	.75760	1.42709	147.936
100	-.09923	.32802	.34270	106.832	100	-.68474	1.23391	1.41117	119.028
105	.05944	.27066	.27711	77.614	105	-.05717	1.41641	1.41756	92.311
110	.14197	.17747	.22727	51.341	110	.52008	1.28355	1.38491	67.943
115	.15508	.09552	.18214	31.632	115	.91574	.88771	1.27539	44.109
120	.12744	.05064	.13713	21.671	120	1.05393	*.33599	1.10619	17.682
125	.09201	.04175	.10104	24.407	125	.92946	-.24150	.96032	345.435
130	.07087	.04710	.08509	33.610	130	.60233	-.72495	.94252	309.721
135	.06817	.03717	.07765	28.603	135	.17541	-.03006	.04489	279.664
140	.07244	-.01220	.07347	350.438	140	-.23619	-.1.1994	1.14457	258.091
145	.06649	-.11160	.12911	300.190	145	-.53473	-.00358	1.13715	241.950
150	.02939	-.25627	.25795	276.542	150	-.66132	-.72473	.98111	227.619
155	-.04066	-.42971	.43163	264.594	155	-.60520	-.34633	.69729	209.781
160	-.13940	-.60965	.62539	257.120	160	-.40099	.06423	.40610	170.899
165	-.25056	-.77381	.81337	252.058	165	-.11606	.44624	.46109	104.579
170	-.35240	-.90379	.97006	248.699	170	-.16776	.75178	.77027	77.420
175	-.42371	-.98666	1.07373	246.759	175	.37411	.94771	1.01888	68.458
180	-.44932	-1.01507	1.11007	246.123	180	.44932	1.01507	1.11007	66.123

KA = 5.0

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-57.897	1.91942	2.01070	107.331	0	-59.897	1.91942	2.01070	107.331
5	-55.862	1.92318	2.00267	106.197	5	-55.952	1.92850	2.00802	106.179
10	-43.832	1.92980	1.37895	102.797	10	-44.099	1.95184	2.00104	102.731
15	-24.134	1.925(2)	1.94068	97.144	15	-24.370	1.97763	1.99259	97.025
20	.02419	1.88949	1.88964	89.267	20	.02940	1.98613	1.98635	89.152
25	.34184	1.79575	1.82860	79.222	25	.36920	1.95042	1.98505	79.281
30	.68383	1.61932	1.75778	67.106	30	.75640	1.83877	1.98827	67.640
35	1.01000	1.34284	1.68027	53.052	35	1.15786	1.61982	1.99109	54.442
40	1.27055	.96497	1.59545	37.216	40	1.52516	1.27048	1.98500	39.795
45	1.41289	.50744	1.50220	19.743	45	1.79739	.78616	1.96180	23.624
50	1.39915	.01758	1.39926	72.0	50	1.90978	.19063	1.91927	5.70
55	1.21053	-.43678	1.28632	340.159	55	1.80828	-.45822	1.86544	345.780
60	.86848	-.78138	1.16825	318.022	60	1.46783	-.67097	1.81700	323.885
65	.43179	-.95598	1.04897	294.307	65	.90894	-.54052	1.78868	300.541
70	-.01323	-.93498	.93507	269.189	70	-.20573	-.76664	1.77858	276.642
75	-.37536	-.73953	.82933	243.089	75	-.52091	-.68559	1.76424	252.627
80	-.58598	-.43435	.72941	216.547	80	-.12718	-.29550	1.71723	228.974
85	-.62071	-.10838	.63010	189.905	85	-.48279	-.66697	1.62589	204.219
90	-.50563	.15434	.52866	163.025	90	-.1.50926	-.06782	1.51078	177.427
95	-.30480	.30167	.42885	135.295	95	-.1.20658	-.746663	1.41891	148.251
100	-.09437	.32684	.34019	106.106	100	-.65732	1.22032	1.38609	118.309
105	.06521	.26333	.27129	76.091	105	-.00515	1.39313	1.39314	90.212
110	.14697	.16497	.22087	48.286	110	.58564	1.24662	1.37733	64.837
115	.15890	.08057	.17816	26.887	115	.97595	.63974	1.28750	40.710
120	.13120	.03662	.13621	15.596	120	1.08018	.28672	1.12532	14.761
125	.09725	.03690	.10214	17.629	125	.92209	-.27792	1.96307	343.227
130	.07782	.04018	.08758	27.306	130	.54761	-.73485	.91645	306.693
135	.07448	.03414	.08193	24.621	135	.07946	-.60547	1.00861	274.519
140	.07290	-.01098	.07172	351.436	140	-.35679	-.1.06206	1.12039	251.431
145	.05247	-.10441	.11686	296.682	145	-.65696	-.92339	1.13324	234.569
150	-.00316	-.23997	.23999	269.246	150	-.76088	-.64038	.99450	220.085
155	-.09879	-.40048	.41248	256.143	155	-.66168	-.27842	.71787	242.825
160	-.22553	-.56434	.60774	248.217	160	-.40181	.09833	.41366	166.249
165	-.36345	-.71132	.79879	242.935	165	-.05865	.43712	.44103	97.642
170	-.48729	-.82587	.95891	239.458	170	.27575	.75297	.51633	68.517
175	-.57301	-.89103	1.06527	237.459	175	.51633	.866628	1.00848	59.254
180	-.60362	-.92261	1.10252	236.805	180	.60362	.92261	.10252	56.85

----- T1 -----

----- T2 -----

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-0.95933	1.79521	2.03546	118.119
5	-0.91979	1.80668	2.00274	116.981
10	-0.80081	1.83604	2.00308	113.565
15	-0.60243	1.86844	1.96316	107.871
20	-0.32817	1.88016	1.90859	99.901
25	.01960	1.84116	1.84119	89.670

----- T3 -----

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
30	.39005	1.71985	1.76352	77.222
35	.77122	1.49076	1.67844	62.646
40	1.10139	1.14419	1.58815	46.092
45	1.32151	.69541	1.49331	27.754
50	1.37982	.18968	1.39280	7.827
55	1.24901	-.30131	1.26484	346.437

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
60	.94104	-.69381	1.16916	323.600
65	.51245	-.91509	1.04881	299.249
70	.05461	-.92838	.92998	273.366
75	-.33089	-.74912	.81895	246.168
80	-.56401	-.46376	.71765	218.195
85	-.61259	-.10891	.62220	190.081

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
90	-.50120	.16189	.52670	162.099
95	-.29782	.30989	.42980	133.862
100	-.08447	.32729	.33802	104.472
105	.07450	.25150	.26231	73.500
110	.15225	.14197	.20817	43.000
115	.16007	.05190	.16827	17.965

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
120	.13176	.00817	.13202	3.547
125	.10173	.00664	.10194	3.735
130	.08600	.02168	.09063	13.840
135	.08668	.02237	.08952	14.473
140	.07771	-.01305	.07880	350.468
145	.03691	-.09020	.09746	292.254

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
150	-.05213	-.19966	.20635	255.366
155	-.19080	-.32341	.37550	239.461
160	-.36450	-.44250	.57329	230.520
165	-.54689	-.54249	.77031	224.768
170	-.70688	-.61551	.93730	221.047
175	-.81606	-.65909	1.04898	218.926

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
180	-.05478	-.67348	1.08822	218.235

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		T1			T2			
e	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.26584	1.57933	2.02401	128.712	0	-1.26584	1.57933	2.02401
5	-1.22926	1.59932	2.01715	127.546	5	-1.23530	1.60178	2.02279
10	-1.1789	1.65403	1.99637	124.055	10	-1.14043	1.66532	2.01638
15	-0.92810	1.72772	1.96123	118.244	15	-.97262	1.75802	2.00914
20	-0.65787	1.79454	1.91132	110.133	20	-.72125	1.85888	1.99390
25	-0.31213	1.82026	1.84684	99.732	25	-.37935	1.93704	1.97384
30	.9086	1.76671	1.76905	87.056	30	.04922	1.95276	88.556
35	.51542	1.59957	1.68056	72.140	35	.54207	1.86162	73.765
40	.90753	1.29932	1.58488	55.067	40	.05254	1.62316	57.039
45	1.20163	.87292	1.48523	35.996	45	.1.50911	1.21378	38.610
50	1.33493	.36167	1.38306	15.159	50	.82335	.64156	19.385
55	1.26730	-.16014	1.27738	352.798	55	.30790	-.94207	1.90837
60	1.00026	-.59930	1.16606	329.072	60	1.70276	-.74036	1.85675
65	.58616	-.86943	1.04857	303.988	65	1.20282	-.1.32474	1.78933
70	.12026	-.92057	.32839	277.443	70	.47616	-.1.66462	1.73139
75	-.28567	-.76050	.81239	249.412	75	.32805	-.1.66756	2.285.963
80	-.53965	-.45624	.70667	220.212	80	.05756	-.1.31613	2.58.540
85	-.60117	-.11202	.61151	190.555	85	.50647	-.68596	2.31.218
90	-.49305	-.16849	.52104	161.133	90	-.57081	-.06726	1.57225
95	-.28748	-.31910	.42950	132.016	95	-.23940	-.74986	1.44858
100	-.07273	-.33045	.33836	102.413	100	-.61230	1.18942	1.33778
105	.08301	.24364	.25739	71.185	105	.12825	1.28820	1.29457
110	.15362	.12369	.19723	38.938	110	.77465	1.05057	1.30529
115	.15460	.02756	.15704	10.107	115	.1.15742	.57487	1.29232
120	.12410	-.01755	.12533	351.948	120	1.19270	-.01471	1.19279
125	.09789	-.01782	.09950	349.682	125	.89926	-.47350	1.01630
130	.09135	-.00065	.09135	359.593	130	.38289	-.77705	866626
135	.09520	.00382	.09527	2.298	135	-.20210	-.85246	87609
140	.08398	-.02253	.08695	344.982	140	-.69929	-.72521	1.00744
145	.03052	-.08032	.08552	290.804	145	-.98992	-.46858	1.09522
150	-.08112	-.15638	.17617	242.581	150	-.01693	-.17242	1.03145
155	-.24898	-.23241	.34059	223.028	155	-.79070	.68653	189.623
160	-.45370	-.29355	.54038	212.904	160	-.37877	.26392	173.754
165	-.66433	-.33325	.74323	206.640	165	.11473	.35281	145.132
170	-.84637	-.35340	.91719	202.663	170	.57421	.37582	71.986
175	-.96938	-.36082	1.03435	200.416	175	.89693	.36872	68626
180	-1.01279	-.36236	1.07566	199.686	180	1.01279	1.07566	19.686

KA = 5.6

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL
0	-1.52926	1.27793	1.99292	140.116	-1.52926
5	-1.49702	1.30681	1.98717	138.881	-1.50480
10	-1.39739	1.38819	1.96971	135.189	-1.42695
15	-1.22300	1.50592	1.93998	129.081	-1.28345
20	-.96598	1.63273	1.89708	120.610	-1.05767
25	-.62422	1.73092	1.84004	109.831	-.73451
30	-.20889	1.75600	1.76838	96.784	-.30869
35	.24891	1.66440	1.68291	81.494	.20582
40	.69561	1.42559	1.58625	63.990	.76740
45	1.06026	1.03622	1.48253	44.343	.30354
50	1.26917	.53136	1.37592	22.718	.40822
55	1.26848	-.01373	1.26856	359.380	.71698
60	1.04753	-.49701	1.15945	334.618	.90422
65	.65276	-.81750	1.06114	308.607	.78820
70	.18219	-.91015	.98220	281.320	.33723
75	-.24219	-.77295	.81600	252.603	.23247
80	-.51579	-.47203	.69118	222.464	.62940
85	-.58899	-.11884	.60386	191.407	.22416
90	-.48278	-.17234	.51262	160.355	.99467
95	-.27403	-.32724	.42683	129.943	.25610
100	-.05791	-.33450	.33748	99.822	.60476
105	.09324	.23870	.25627	68.663	.20645
110	.15433	.11015	.18961	35.515	.16324
115	.14574	.00898	.14601	3.526	.25345
120	.11064	-.03798	.11698	341.055	.82385
125	.08664	-.02927	.09512	335.615	.94934
130	.08674	-.02362	.08990	344.765	.19633
135	.09684	-.01921	.09872	348.778	.31029
140	.08704	-.03893	.09535	335.900	.29200
145	.02835	-.07715	.08219	290.176	.78791
150	-.09389	-.11644	.14958	231.121	.04485
155	-.27442	-.13865	.30746	206.805	.155
160	-.49649	-.13416	.50856	195.298	.77259
165	-.70905	-.10572	.71689	188.480	.33576
170	-.89534	-.06633	.89779	184.237	.16932
175	-1.01999	-.03317	1.02053	181.863	.63003
180	-1.06376	-.02032	1.06396	181.094	.94968
				180	1.06376

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL
0	1.52926	1.27793	1.99292	140.116	1.27793
5	1.49702	1.30681	1.98717	138.881	1.30991
10	1.39739	1.38819	1.96971	135.189	1.40170
15	1.22300	1.50592	1.93998	129.081	1.28345
20	.96598	1.63273	1.89708	120.610	1.05767
25	.62422	1.73092	1.84004	109.831	.73451
30	-.20889	1.75600	1.76838	96.784	-.30869
35	.24891	1.66440	1.68291	81.494	.20582
40	.69561	1.42559	1.58625	63.990	.76740
45	1.06026	1.03622	1.48253	44.343	.30354
50	1.26917	.53136	1.37592	22.718	.40822
55	1.26848	-.01373	1.26856	359.380	.71698
60	1.04753	-.49701	1.15945	334.618	.90422
65	.65276	-.81750	1.06114	308.607	.78820
70	.18219	-.91015	.98220	281.320	.33723
75	-.24219	-.77295	.81600	252.603	.23247
80	-.51579	-.47203	.69118	222.464	.62940
85	-.58899	-.11884	.60386	191.407	.22416
90	-.48278	-.17234	.51262	160.355	.99467
95	-.27403	-.32724	.42683	129.943	.25610
100	-.05791	-.33450	.33748	99.822	.60476
105	.09324	.23870	.25627	68.663	.20645
110	.15433	.11015	.18961	35.515	.16324
115	.14574	.00898	.14601	3.526	.25345
120	.11064	-.03798	.11698	341.055	.82385
125	.08664	-.02927	.09512	335.615	.94934
130	.08674	-.02362	.08990	344.765	.19633
135	.09684	-.01921	.09872	348.778	.31029
140	.08704	-.03893	.09535	335.900	.29200
145	.02835	-.07715	.08219	290.176	.78791
150	-.09389	-.11644	.14958	231.121	.04485
155	-.27442	-.13865	.30746	206.805	.155
160	-.49649	-.13416	.50856	195.298	.77259
165	-.70905	-.10572	.71689	188.480	.33576
170	-.89534	-.06633	.89779	184.237	.16932
175	-1.01999	-.03317	1.02053	181.863	.63003
180	-1.06376	-.02032	1.06396	181.094	.94968

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ
0	-1.75330	*91954	1.97980	152.325	-1.97980
5	-1.72630	*95659	1.97362	151.020	1.98196
10	-1.64122	1.06275	1.95526	147.975	1.98820
15	-1.48714	1.22243	1.92508	140.580	1.99720
20	-1.25042	1.40822	1.88326	131.503	1.48429
25	-0.92157	1.58041	1.82947	120.247	1.34900
30	-0.50394	1.68930	1.76286	106.611	1.04974
35	-0.02249	1.68247	1.68262	90.766	-1.75330
40	*47124	1.51760	1.58908	72.750	-1.73380
45	*90223	1.17920	1.48476	52.580	-1.67034
50	1.18636	*69266	1.37427	30.315	-1.54884
55	1.25526	*13474	1.26247	6.127	-1.34974
60	1.08449	-38788	1.15176	340.320	0
65	*71280	-75841	1.04080	313.224	0
70	*23996	-89514	92675	285.007	5
75	-0.20133	-78424	80980	255.568	10
80	-0.49447	-48938	69570	224.703	15
85	-0.57836	-12862	59249	192.538	20
90	-0.47234	-17298	50302	159.887	25
95	-0.25853	-33275	42138	127.846	30
100	-0.03986	-33718	33953	96.745	35
105	*10657	*23438	25747	65.549	40
110	*15679	*09969	18580	32.448	45
115	*13545	-00427	13653	35A.207	50
120	*09424	-05202	10764	331.102	55
125	*06285	-05516	38921	321.703	60
130	*07440	-04367	08627	329.586	65
135	*08985	-04294	09958	334.458	70
140	*08335	-05946	10239	324.497	75
145	*02576	-06042	08444	287.764	80
150	-0.09510	-0.08383	12677	221.394	85
155	-0.27077	-0.05196	27571	190.867	90
160	-0.47662	-0.1889	47730	177.731	95
165	-0.68052	-0.1619	69037	170.311	100
170	-0.65115	-0.21552	87801	165.791	105
175	-0.96378	-0.28939	1.00629	163.287	110
180	-1.00305	.31665	1.05184	162.480	115
180				1.00305	120
				-0.31664	125

KA = 6.0

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.92365	.53626	1.99754	164.368	0	-1.92365	0	1.99754	164.368
5	-1.90300	.58163	1.98990	163.305	5	-1.90891	.58435	1.99635	162.980
10	-1.83586	.70745	1.96746	158.926	10	-1.85954	.71954	1.99390	158.846
15	-1.70796	.90192	1.93147	152.163	15	-1.76067	.93342	1.99280	152.670
20	-1.49997	1.13936	1.88363	142.780	20	-1.58971	1.20542	1.99504	142.828
25	-1.19466	1.38018	1.82549	130.879	25	-1.32081	1.50114	1.99949	131.364
30	-0.78665	1.57148	1.75738	116.592	30	-0.93292	1.76976	2.00066	117.796
35	-0.29318	1.65315	1.67894	100.357	35	-0.42133	1.94542	1.99052	112.220
40	-0.23811	2.57100	1.58894	81.381	40	-0.18912	1.95540	1.96453	84.476
45	-0.72972	1.29582	1.49716	60.615	45	-0.83389	1.73712	1.92690	64.357
50	1.08772	.84767	1.37595	37.766	50	1.40843	1.26228	1.89130	41.868
55	1.22853	.28099	1.26026	12.883	55	1.78431	.56173	1.87065	17.475
60	1.11212	-.27398	1.14538	346.160	60	1.84349	-.26030	1.86178	351.963
65	.76746	-.69210	1.03343	317.956	65	1.52387	-.03523	1.84224	325.810
70	.29463	-.87391	0.92224	288.631	70	.85963	-.56893	1.78899	298.719
75	-.16403	-.79197	0.80878	258.298	75	-.00491	-.70424	1.70424	269.835
80	-.47595	-.50591	0.69460	226.747	80	-.84332	-.38577	1.62221	238.677
85	-.57033	-.13969	0.58719	193.763	85	-.41525	-.69748	1.57778	206.236
90	-.46336	1.7094	0.9388	159.751	90	-.155195	1.55926	1.74.450	143.946
95	-.24273	.33483	0.41356	125.940	95	-.122285	.89023	1.51257	113.148
100	-.01996	.33658	0.33717	93.393	100	-.55134	1.28960	1.40252	79.492
105	-.12258	.22814	0.25899	61.750	105	-.23016	1.24088	1.26204	42.557
110	-.16178	.08990	0.18508	29.060	110	-.86701	1.79605	1.17703	19.2.948
115	-.12875	-.01375	0.12948	353.904	115	1.17318	1.4027	1.18153	6.818
120	-.07767	-.05981	0.09803	322.402	120	1.08864	-.48466	1.19165	336.032
125	-.05042	-.06393	0.08142	308.259	125	-.68406	-.87160	1.10798	308.126
130	-.05645	-.05767	0.08069	314.387	130	-.11867	-.91718	1.92482	277.372
135	-.07483	-.06325	0.09798	319.793	135	-.42484	-.64541	1.77268	236.645
140	-.07153	-.08019	0.10746	311.734	140	-.80028	-.18399	1.82116	192.948
145	-.01932	-.08807	0.09017	282.375	145	-.93318	-.29102	1.97750	162.679
150	-.09003	-.06041	0.10842	213.859	150	-.82545	-.61872	1.03159	143.146
155	-.24470	.01982	0.24550	175.369	155	-.53658	-.70327	1.88459	127.343
160	-.41981	.15047	0.44596	160.281	160	-.15411	-.53727	.55894	106.005
165	-.58715	.30957	0.66377	152.200	165	-.23392	-.19553	.30488	39.893
170	-.72267	.46235	0.85792	147.390	170	-.55673	-.19508	.58992	340.689
175	-.80988	.57231	0.99169	144.753	175	-.76714	-.49852	.91489	326.983
180	-.83987	.61230	1.03937	143.906	180	-.83987	-.61230	1.03937	323.906

KA = 6.2

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-2.01534	.15551	2.02134	175.588	0	-2.01534	.15551	2.02134	175.588
5	-2.00270	.20287	2.01295	174.216	5	-2.00733	.20290	2.01756	174.228
10	-1.95853	.34180	1.98813	170.100	10	-1.97774	.34383	2.00746	176.138
15	-1.86522	.56150	1.94790	163.246	15	-1.91025	.57294	1.99431	163.305
20	-1.69764	.83998	1.89408	153.674	20	-1.77909	.87639	1.98324	153.775
25	-1.43021	1.14015	1.82906	141.439	25	-1.55284	1.22586	1.97839	141.711
30	-1.04759	1.40825	1.75517	126.645	30	-1.20208	1.57311	1.97981	127.385
35	-55740	1.57818	1.67372	109.453	35	-71176	1.84869	1.98097	111.057
40	-0.01111	1.58435	1.58435	90.040	40	-0.09664	1.96868	1.97105	92.810
45	.54320	1.38270	1.48557	68.552	45	.58494	1.85247	1.94263	72.476
50	.97264	.97438	1.37675	45.051	50	1.22706	1.45089	1.90200	49.778
55	1.18772	.42145	1.26027	19.537	55	1.69019	.77781	1.86058	24.711
60	1.13064	-1.15774	1.14159	352.058	60	1.83719	-.06822	1.83845	357.873
65	.81793	-.61961	1.02612	322.855	65	1.58493	-.90822	1.82671	330.186
70	.34808	-.84628	.91507	292.357	70	.95332	-.52318	1.79691	362.041
75	-.12691	-.79503	.80510	260.931	75	.08601	-.72527	1.72741	272.854
80	-.45992	-.52002	.69362	228.565	80	-.77676	-.43591	1.63255	241.589
85	-.56482	-.15040	.58450	194.910	85	-.37356	-.73437	1.55755	208.131
90	-.45692	1.6742	.48663	159.877	90	-.51908	.15307	1.52677	174.246
95	-.22855	.33387	.40450	124.394	95	-.18064	.92843	1.50197	141.819
100	-.00034	.33207	.33207	90.058	100	-.49531	1.33417	1.42314	110.367
105	.13953	.21850	.25925	57.437	105	.28369	1.25292	1.28463	77.242
110	.16866	.07879	.18616	25.641	110	.88769	.74940	1.16172	43.171
115	.12345	-.02139	.12529	350.172	115	1.13415	.03688	1.13475	1.862
120	.06327	-.06263	.08903	315.289	120	.98494	-.61353	1.16040	328.081
125	.03160	-.06566	.07287	295.701	125	.54131	-.97826	1.11804	298.958
130	.03624	-.06415	.07368	299.459	130	.01340	-.95739	.95749	269.198
135	.05420	-.07725	.09437	305.053	135	-.49162	-.59596	.77257	230.480
140	.05215	-.09746	.11053	298.150	140	-.76544	-.05112	.76714	183.821
145	.0703	-.09708	.09733	274.139	145	-.79550	.47440	.92622	149.190
150	-.08377	-.04565	.09540	208.588	150	-.62217	.80422	1.01679	127.726
155	-.20472	.07276	.21727	160.434	155	-.33172	.84174	.90475	111.569
160	-.33210	.25047	.41596	142.976	160	-.01647	.59196	.59219	91.594
165	-.44436	.45753	.63780	134.164	165	.25490	.15045	.29599	30.551
170	-.52814	.65111	.83837	129.047	170	.44864	-.33263	.55856	323.446
175	-.57843	.78824	.97771	126.272	175	.55956	-.73077	.89677	338.607
180	-.59503	.83774	1.02755	125.385	180	.59503	-.83774	1.02755	305.385

T2

T1

KA = 6.4

T1		T2	
θ	REAL	IMAGINARY	MAGNITUDE
	ARGUMENT		
0	-2.04024	-0.22425	2.02271
5	-2.00751	-0.17493	2.01512
10	-1.99204	-0.02872	1.99225
15	-1.94296	.20749	1.95401
20	-1.82915	.51690	1.90979
25	-1.61614	.86692	1.83398
30	-1.27731	1.20516	1.75611
35	-.80860	1.46138	1.67016
40	-.24279	1.55941	1.57820
45	.34386	1.43965	1.48315
50	.84074	1.08722	1.37437
55	1.13191	.55385	1.26014
60	1.13957	-.04152	1.14032
65	.86470	-.54299	1.02105
70	.40169	-.81364	.90740
75	-.08864	-.79393	.79891
80	-.44210	-.52132	.69119
85	-.56105	-.15956	.58329
90	-.45329	.16405	.48206
95	-.21727	.33137	.39625
100	.01708	.32453	.32498
105	.15547	.20533	.25755
110	.17613	.06522	.18782
115	.12049	-.02911	.12395
120	.05237	-.06264	.08165
125	.01601	-.06199	.06403
130	.01701	-.06351	.06575
135	.03098	-.08360	.08916
140	.02701	-.10836	.11168
145	-.01157	-.10388	.10452
150	-.08004	-.03696	.08816
155	-.15882	.10657	.19126
160	-.22637	.31413	.38720
165	-.27008	.55002	.61275
170	-.28994	.76674	.81973
175	-.29489	.91855	.96473
180	-.29509	.97304	1.01680
			180
			.29509
			180
			.97304
			1.01680
			180
			.97304
			1.01680

T1		T2	
θ	REAL	IMAGINARY	MAGNITUDE
	ARGUMENT		
0	-2.04024	-0.22425	2.02271
5	-2.00751	2.01512	186.365
10	-1.99204	1.99225	184.980
15	-1.94296	1.95401	180.826
20	-1.82915	1.90979	173.904
25	-1.61614	1.83398	164.220
30	-1.27731	1.20516	136.665
35	-.80860	1.46138	118.356
40	-.24279	1.55941	98.849
45	.34386	1.43965	76.566
50	.84074	1.08722	52.286
55	1.13191	.55385	26.073
60	1.13957	-.04152	357.913
65	.86470	-.54299	1.02105
70	.40169	-.81364	.90740
75	-.08864	-.79393	.79891
80	-.44210	-.52132	.69119
85	-.56105	-.15956	.58329
90	-.45329	.16405	.48206
95	-.21727	.33137	.39625
100	.01708	.32453	.32498
105	.15547	.20533	.25755
110	.17613	.06522	.18782
115	.12049	-.02911	.12395
120	.05237	-.06264	.08165
125	.01601	-.06199	.06403
130	.01701	-.06351	.06575
135	.03098	-.08360	.08916
140	.02701	-.10836	.11168
145	-.01157	-.10388	.10452
150	-.08004	-.03696	.08816
155	-.15882	.10657	.19126
160	-.22637	.31413	.38720
165	-.27008	.55002	.61275
170	-.28994	.76674	.81973
175	-.29489	.91855	.96473
180	-.29509	.97304	1.01680
			180
			.29509
			180
			.97304
			1.01680

KA = 6.6

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ			θ			θ			θ		
0	-1.90915	--.60291	2.00208	197.526	0	-1.90915	--.60291	2.00208	197.526	196.182	196.182
5	-1.91767	--.55312	1.99585	196.389	5	-1.92380	--.55827	2.00316	196.182	192.147	192.147
10	-1.93511	--.40393	1.97682	191.790	10	-1.96000	--.42187	2.00489	192.147	185.398	185.398
15	-1.93773	--.15789	1.94415	184.658	15	-1.99467	--.18850	2.00356	185.398	175.874	175.874
20	-1.88882	.17426	1.89684	174.729	20	-1.99041	.14357	1.95559	175.874	163.488	163.488
25	-1.74502	.56590	1.83448	162.033	25	-1.89897	.56294	1.98065	1.98065	148.216	148.216
30	-1.46763	.96783	1.75802	146.597	30	-1.66921	1.03429	1.96368	1.96368	136.242	136.242
35	-1.03914	1.30758	1.67020	128.474	35	-1.26138	1.49041	1.95254	1.95254	109.999	109.999
40	-4.8095	1.49950	1.57474	107.783	40	-6.6711	1.83303	1.95065	1.95065	87.958	87.958
45	.13531	1.46825	1.47447	84.734	45	.66947	1.94870	1.94994	1.94994	64.272	64.272
50	.69328	1.18116	1.36959	59.589	50	.83951	1.74217	1.93389	1.93389	38.628	38.628
55	1.06069	.67695	1.25831	32.547	55	1.47852	1.18149	1.89269	1.89269	10.607	10.607
60	1.13783	.07272	1.14015	3.657	60	1.80567	.33816	1.93706	1.93706	346.394	346.394
65	.90696	-.46443	1.01896	332.884	65	1.68929	-.60173	1.79326	1.79326	369.672	369.672
70	.45545	-.77802	.90153	300.344	70	1.11651	-.1.37533	1.77147	1.77147	277.616	277.616
75	-.04848	-.79624	.79173	266.490	75	.23130	-.1.72981	1.74520	1.74520	211.911	211.911
80	-.42396	-.54030	.68678	231.879	80	-.69071	-.1.52938	1.67812	1.67812	245.695	245.695
85	-.55778	-.16656	.58212	196.627	85	-.33562	-.83169	1.57346	1.57346	10.607	10.607
90	-.45171	1.6232	.47999	160.234	90	-1.47924	.11308	1.48356	1.48356	175.629	175.629
95	-.20889	.32922	.38990	122.395	95	-1.08883	.95305	1.44701	1.44701	138.864	138.864
100	.03141	.31559	.31715	84.316	100	-.34266	1.37947	1.42140	1.42140	103.950	103.950
105	.16892	.18943	.25381	48.276	105	.44763	1.25658	1.33393	1.33393	70.393	70.393
110	.18260	.04879	.18900	14.959	110	.97532	.67273	1.18482	1.18482	34.596	34.596
115	.11878	-.03851	.12487	342.038	115	1.06811	-.10931	1.07368	1.07368	354.157	354.157
120	.04498	-.06220	.07676	305.870	120	.74746	-.77341	1.07557	1.07557	314.023	314.023
125	.00490	-.05535	.05556	275.058	125	.19637	-.1.08073	1.09843	1.09843	286.298	286.298
130	.00116	-.05727	.05728	271.163	130	-.33846	-.95250	1.01085	1.01085	250.438	250.438
135	.00821	-.08216	.08257	275.708	135	-.65699	-.47795	.81244	.81244	216.035	216.035
140	-.00106	-.11086	.11086	269.454	140	-.67876	.14173	.69340	.69340	168.255	168.255
145	-.03511	-.10506	.11C78	251.519	145	-.45411	.67962	.81737	.81737	123.750	123.750
150	-.08054	-.03C82	.08623	200.941	150	-.12014	.962C9	.96956	.96956	97.118	97.118
155	-.11334	.12328	.16746	132.593	155	.17052	.91589	.93163	.93163	79.453	79.453
160	-.11498	.34051	.35949	108.658	160	.31481	.57590	.65633	.65633	61.337	61.337
165	-.08321	.58227	.58819	98.133	165	.29334	.66071	.29955	.29955	11.693	11.693
170	-.03296	.80077	.80145	92.357	170	.16473	-.47007	.49810	.49810	289.313	289.313
175	.01168	.95207	.95214	89.297	175	.02785	-.86219	.86264	.86264	271.850	271.850
180	.02936	1.00605	1.00648	88.329	180	-.C2936	-1.00605	1.00648	1.00648	268.329	268.329

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ			θ			θ			θ		
0	-1.72973	-.97411	1.98516	209.386	0	-1.72973	-.97411	1.98516	209.386	207.906	207.906
5	-1.74967	-.92516	1.97921	207.868	5	-1.75673	-.93039	1.98790	1.98790	203.513	203.513
10	-1.80087	-.77687	1.96129	203.335	10	-1.82935	-.79590	1.99499	1.99499	196.313	196.313
15	-1.85772	-.52728	1.93110	195.846	15	-1.92233	-.56259	2.00296	2.00296	186.399	186.399
20	-1.87928	-.18043	1.88792	185.484	20	-1.99383	-.22362	2.00633	2.00633	173.774	173.774
25	-1.81430	.24419	1.83066	172.334	25	-1.98799	.21689	1.99978	1.99978		
30	-1.61223	.70239	1.75859	156.459	30	-1.84223	.73155	1.98217	158.342		
35	-1.24091	1.12135	1.67251	137.897	35	-1.50207	1.25855	1.95963	140.041		
40	-.70784	1.40745	1.57542	116.699	40	-.94352	1.69847	1.94295	119.053		
45	-.07669	1.46971	1.47171	92.987	45	-.19885	1.92688	1.93711	95.892		
50	.53322	1.25623	1.36472	67.001	50	.62537	1.82781	1.93184	71.112		
55	.97444	.79010	1.25450	39.036	55	1.35302	1.34426	1.90721	44.814		
60	1.12411	.18392	1.13905	9.292	60	1.77836	.52810	1.85512	16.539		
65	.94290	-.38527	1.01858	337.775	65	1.73935	-.43856	1.79370	345.849		
70	.50802	-.74090	.89834	304.437	70	1.20035	-.27682	1.75246	313.232		
75	-.00674	-.78522	.78525	269.508	75	.30235	-.70364	1.73026	280.064		
80	-.40392	-.54792	.68071	233.603	80	-.65905	-.55339	1.68742	247.010		
85	-.55364	-.17162	.57963	197.222	85	-.33724	-.86989	1.59528	213.045		
90	-.45064	.16291	.47918	160.125	90	-1.48189	.08807	1.48450	176.599		
95	-.20233	.32877	.38634	121.609	95	-1.05762	.94527	1.41849	138.211		
100	-.04286	.30683	.30981	82.047	100	-.26670	1.37190	1.39758	101.001		
105	.17902	.17209	.248832	43.870	105	.54297	1.22829	1.34295	66.152		
110	.18645	.02997	.18885	9.131	110	1.03919	.61838	1.20926	30.755		
115	.11657	-.05022	.12693	335.692	115	1.05276	-.17171	1.06667	350.736		
120	.03986	-.06307	.07461	302.292	120	.63775	-.81182	1.03236	338.153		
125	-.00177	-.04808	.04811	267.890	125	.02336	-.06919	1.06945	271.252		
130	-.00983	-.04758	.04859	258.332	130	-.50761	-.88869	1.02344	240.265		
135	-.01122	-.07398	.07483	261.376	135	-.74746	-.38714	.84177	207.381		
140	-.02848	-.10430	.10812	254.730	140	-.64091	.21868	.67719	161.160		
145	-.06071	-.09832	.11555	238.306	145	-.28579	.70709	.76266	112.007		
150	-.08504	-.02385	.08832	195.666	150	.13039	.92787	.93698	82.001		
155	-.07303	.12635	.14594	120.029	155	.42128	.83708	.93711	63.285		
160	-.00961	.33219	.33233	91.657	160	.47915	.49017	.68546	45.652		
165	.09666	.55536	.56371	80.127	165	.31026	.0765	.31035	1.412		
170	.21586	.75262	.78297	73.996	170	.02004	-.46810	.46853	272.451		
175	.30905	.88700	.93930	70.790	175	-.24674	-.81050	.84555	253.457		
180	.34421	.93453	.99591	69.780	180	-.34421	-.93453	.99591	249.780		

KA = 7.0

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.49325	-1.31705	1.99108	221.412	0	-1.49325	-1.31705	1.99108	221.412
5	-1.52360	-1.27074	1.98397	219.829	5	-1.52984	-1.27502	1.99150	219.869
10	-1.60610	-1.12873	1.96306	215.099	10	-1.63182	-1.14497	1.99344	215.055
15	-1.71481	-0.88416	1.92933	207.276	15	-1.77516	-0.91659	1.99783	207.309
20	-1.80658	-0.53361	1.88374	196.456	20	-1.91800	-0.57847	2.00334	196.783
25	-1.82437	-0.08797	1.82649	182.761	25	-2.00079	-0.12755	2.00485	183.648
30	-1.70690	-0.41563	1.75677	166.315	30	-1.95150	-0.41753	1.99566	167.924
35	-1.40693	-0.90642	1.67364	147.208	35	-1.69989	-1.00240	1.97343	149.473
40	-0.91505	-1.28457	1.57763	125.487	40	-1.20230	-1.52933	1.94534	128.173
45	-0.28586	-1.44394	1.47197	101.198	45	-0.47295	-1.86564	1.92465	104.225
50	-0.36438	-1.31187	1.36154	74.477	50	-0.3902	-1.87619	1.91630	78.257
55	-0.87431	-0.89288	1.24966	45.602	55	1.20250	1.47829	1.90561	52.874
60	1.09759	-0.29201	1.13577	14.898	60	1.73321	-0.70165	1.86985	22.039
65	0.97076	-0.30548	1.01769	342.532	65	1.78462	-0.27907	1.80631	351.112
70	0.55768	-0.70256	0.89700	308.442	70	1.29106	-1.17172	1.74349	317.774
75	0.03558	-0.77969	0.78050	272.613	75	0.38466	-1.66429	1.70817	283.014
80	-0.38194	-0.55530	0.67397	235.480	80	-0.62056	-1.56160	1.68038	248.328
85	-0.54766	-0.17574	0.57517	197.791	85	-1.34190	-0.89379	1.61232	213.666
90	-0.44857	-0.16532	0.47806	159.769	90	-1.49704	-0.07131	1.49874	177.273
95	-0.19610	-0.33035	0.38417	120.694	95	-1.04318	-0.93546	1.40118	138.116
100	-0.05230	-0.29934	0.30388	80.389	109	-0.20510	-1.35052	1.36660	98.635
105	0.18565	-0.15480	0.24172	39.823	105	0.63115	1.17829	1.33669	61.824
110	0.18657	-0.01011	0.18684	3.100	110	1.10489	-0.54400	1.23155	26.214
115	0.11210	-0.06370	0.12894	330.394	115	1.04746	-0.24063	1.07474	347.064
120	0.03531	-0.06589	0.07475	298.186	120	0.54416	-0.83531	0.99692	303.082
125	-0.0495	-0.04201	0.04230	263.275	125	-0.13079	-1.02309	1.03141	262.715
130	-0.01552	-0.03689	0.04003	247.103	130	-0.65990	-0.78342	1.02431	229.891
135	-0.02521	-0.06129	0.06627	247.644	135	-0.82893	-0.26727	0.87995	197.870
140	-0.05180	-0.08984	0.10371	240.034	140	-0.60723	-0.29499	0.67519	154.906
145	-0.08479	-0.08307	0.11870	224.412	145	-0.13688	-0.69753	0.71083	101.112
150	-0.09193	-0.01348	0.09292	188.342	150	0.34968	-0.82857	0.89934	67.119
155	-0.04080	-0.12029	0.12702	108.735	155	0.63794	-0.68665	0.93726	47.116
160	-0.08004	-0.29545	0.30613	74.842	160	0.61833	-0.35312	0.71206	29.730
165	-0.25178	-0.47709	0.53945	62.177	165	0.32108	-0.05482	0.32572	350.310
170	0.43109	-0.63139	0.76445	55.672	170	-0.10779	-0.42666	0.43948	255.862
175	0.56630	-0.73313	0.92638	52.316	175	-0.47389	-0.67930	0.82826	235.110
180	0.61652	-0.76853	0.98526	51.0263	180	-0.61652	-0.76853	0.98526	231.263

		T1			T2				
		REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
θ	φ								
0	-1.21196	-1.60385	2.01027	232.923	0	-1.21196	-1.60335	232.923	2.01027
5	-1.25122	-1.56279	2.00196	231.318	5	-1.25483	-1.56669	231.337	2.00727
10	-1.36107	-1.43466	1.97757	226.508	10	-1.37747	-1.45001	226.470	1.99999
15	-1.51684	-1.20716	1.93856	218.514	15	-1.56023	-1.23966	218.468	1.99276
20	-1.67547	-86822	1.88706	207.393	20	-1.76568	-91759	207.460	1.98988
25	-1.77649	-41825	1.82506	193.248	25	-1.93502	-47149	193.694	1.99163
30	-1.74963	11528	1.75342	176.230	30	-1.98984	09055	177.394	1.99193
35	-1.53281	66648	1.67144	156.500	35	-1.84456	72360	158.597	1.98120
40	-1.09951	13162	1.57781	134.175	40	-1.43285	33085	1.95556	137.114
45	-48702	39007	1.47292	109.308	45	-74507	77369	1.92383	112.786
50	19058	34695	1.36036	81.947	50	13618	89687	85.894	1.90176
55	76231	98481	1.24538	52.258	55	1.02439	59072	1.89202	57.219
60	1.05862	39740	1.13075	20.576	60	1.66415	86071	1.87356	27.348
65	98980	24421	1.01487	347.237	65	1.81881	12757	1.82328	355.988
70	60327	6238	89593	312.326	70	1.38539	6916	1.74998	322.341
75	77740	7380	77766	275.712	75	47988	62240	1.69188	286.477
80	-35865	-56339	66786	237.520	80	56900	56186	1.66228	249.983
85	-53980	-18033	56913	198.473	85	-1.34121	90569	1.61803	214.013
90	-44476	16834	16834	47555	90	-1.51764	68820	1.51917	177.427
95	-19901	33342	33342	38327	95	-1.04293	93403	1.40004	138.153
100	60889	29358	29358	29983	100	-1.6139	32644	1.33622	96.937
105	18948	13892	13892	23495	105	70354	11367	1.31728	57.718
110	18279	60906	18279	18301	110	1.16201	4962	1.24596	21.153
115	10439	7754	10439	13004	115	1.04481	32326	1.09368	342.838
120	2979	07031	2979	07636	120	46624	85589	97464	298.579
125	-00614	-3821	-00614	03870	125	-25842	95485	98920	254.856
130	-01663	-2750	-01663	03214	130	-78226	64507	1.01393	219.509
135	-03300	-4691	-03300	05736	135	-88880	11946	89680	187.655
140	-06867	-6988	-06867	09797	140	-57210	37775	68556	146.564
145	-10410	-6027	-10410	12629	145	-01276	66469	66481	91.160
150	-09875	00174	-09875	09876	150	-52202	68097	85804	52.527
155	-01727	-10985	-01727	11120	155	-80004	47963	93285	35.943
160	14790	23892	14790	28100	160	-71560	17344	73632	13.624
165	36923	36017	36923	51581	165	-32036	12722	34470	338.341
170	59306	45320	59306	74640	170	-20940	35403	41132	239.396
175	75881	50942	75881	91395	175	-64995	48585	81147	216.779
180	61987	52795	61987	97515	180	-81987	52795	97515	212.779

T1		T2			
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	
0	-0.88751	-1.81331	2.01885	243.921	
5	-0.93438	-1.78042	2.01071	242.309	0
10	-1.06809	-1.67480	1.98639	237.473	-0.88751
15	-1.26643	-1.47814	1.94647	229.411	-0.93495
20	-1.48838	-1.16859	1.89232	218.137	-1.07339
25	-1.67220	-0.73413	1.82625	203.702	-1.28864
30	-1.74045	-0.18979	1.75077	186.223	-1.52025
35	-1.61685	-0.40664	1.66721	165.881	-1.54962
40	-1.25575	-0.95051	1.57492	142.877	-1.59864
45	-0.67650	-1.30780	1.47741	117.352	-1.62639
50	-0.01522	-1.6023	1.312	89.359	-1.00232
55	-0.64100	-1.06494	1.244	58.956	-0.12501
60	1.00868	49997	1.12579	26.366	1.56949
65	1.00047	-1.14079	1.31032	351.990	1.00952
70	-0.64440	-0.61952	0.89390	316.128	1.86617
75	-0.11778	-0.76714	0.77613	278.729	1.97766
80	-0.33517	-0.57255	0.66344	239.655	1.42155
85	-0.53090	-0.18638	0.56267	199.344	1.9598
90	-0.43939	-0.17074	0.47140	158.765	1.0598
95	-0.18045	-0.33706	0.38233	118.163	1.10598
100	-0.06983	-0.28935	0.29766	76.433	1.10598
105	-0.19178	-0.12516	0.22901	33.128	1.0598
110	-0.17594	-0.02609	0.17787	351.564	1.20164
115	-0.09337	-0.09020	0.12983	315.989	1.03426
120	0.02225	-0.07541	0.07863	286.436	0.79117
125	-0.00705	-0.03692	0.03758	120	-1.53453
130	-0.01477	-0.02096	0.02564	125	-1.04839
135	-0.03521	-0.03342	0.04854	100	-1.3182
140	-0.07802	-0.04726	0.09122	105	-0.75697
145	-0.11604	-0.03197	0.12036	110	-1.20164
150	-0.10254	-0.02194	0.10486	167.922	0.34001
155	-0.00117	-0.09885	0.09885	150	1.28943
160	-0.19151	-0.17152	0.25709	259.186	1.04386
165	-0.44135	-0.21934	0.49285	234.826	1.31629
170	-0.68877	-0.23857	0.72892	223.503	1.04386
175	-0.86963	-0.24010	0.90216	211.203	1.28943
180	0.93582	23846	0.96572	14.295	1.04386

KA = 7.6

T1						T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	φ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	
0	-0.52004	-1.93924	2.00776	254.988	0	-0.52004	-1.93924	2.00776	254.988	0	2.00776
5	-0.57354	-1.91693	2.00189	253.343	5	-0.57227	-1.92413	2.00743	253.437	5	2.00743
10	-0.72845	-1.84110	1.97997	248.413	10	-0.72661	-1.86890	2.00518	248.755	10	2.00518
15	-0.96582	-1.68738	1.94424	240.214	15	-0.97308	-1.74565	1.99855	240.863	15	1.99855
20	-1.24802	-1.42372	1.89328	228.762	20	-1.28624	-1.51465	1.98711	229.662	20	1.98711
25	-1.51390	-1.02438	1.82791	214.084	25	-1.61536	-1.13627	1.97497	215.123	25	1.97497
30	-1.68067	-0.48956	1.75052	196.240	30	-1.87831	-0.58974	1.96872	197.431	30	1.96872
35	-1.65880	-1.3450	1.66424	175.364	35	-1.96714	-0.10297	1.96983	177.004	35	1.96983
40	-1.38283	-0.74541	1.5794	151.673	40	-1.77298	-0.85559	1.96863	154.239	40	1.96863
45	-0.85162	1.19820	1.47702	125.403	45	-1.23188	-1.51229	1.95053	129.166	45	1.95053
50	-0.15877	1.35075	1.36204	96.704	50	-0.37982	1.87522	1.91330	101.450	50	1.91330
55	0.51292	1.13161	1.24243	65.617	55	0.61119	1.77264	1.87505	70.976	55	1.87505
60	0.94962	0.59858	1.12253	32.224	60	1.45154	1.15235	1.05334	38.445	60	1.05334
65	1.00382	-0.05539	1.00535	356.841	65	1.82762	0.15596	1.8426	4.877	65	1.8426
70	0.68130	-0.57337	0.89046	319.916	70	1.54961	-0.88416	1.78411	335.292	70	1.78411
75	-0.15618	-0.75891	0.77481	281.629	75	0.68214	-1.55811	1.70089	293.644	75	1.70089
80	-0.31259	-0.58231	0.66091	241.773	80	-0.43235	-1.57082	1.62923	254.611	80	1.62923
85	-0.52216	-0.19404	0.55705	200.386	85	-1.30504	-0.91370	1.59310	214.997	85	1.59310
90	-0.43322	-0.17177	0.46603	158.372	90	-1.53993	0.09884	1.54310	176.327	90	1.54310
95	-0.17039	-0.34026	0.38354	116.599	95	-1.04928	0.97538	1.43265	137.090	95	1.43265
100	-0.07998	-0.28586	0.29684	74.370	100	-0.10843	1.30554	1.31004	94.748	100	1.31004
105	0.19394	-0.11338	0.22465	30.311	105	0.79312	0.97786	1.25907	50.955	105	1.25907
110	0.16734	-0.04031	0.17213	346.455	110	1.21813	0.22398	1.23855	10.418	110	1.23855
115	0.07969	-0.10104	0.12819	308.438	115	1.00551	-0.53208	1.13761	332.114	115	1.13761
120	-0.01223	-0.07988	0.08C81	278.708	120	-0.32707	-0.91786	0.97440	289.613	120	0.97440
125	-0.00920	-0.03745	-0.03856	256.192	125	-0.43651	-0.80024	0.91155	241.389	125	0.91155
130	-0.01194	-0.01774	-0.02139	236.057	130	-0.90946	-0.31889	0.96374	199.323	130	0.96374
135	-0.03329	-0.02261	-0.0424	214.181	135	-0.89967	-0.22927	0.92842	165.703	135	0.92842
140	-0.07988	-0.02481	-0.08364	197.255	140	-0.46051	0.56751	0.73085	129.058	140	0.73085
145	-0.11993	-0.00109	-0.11893	180.524	145	0.17009	0.57471	0.59936	73.513	145	0.59936
150	-0.10059	-0.04578	-0.11052	155.527	150	0.69977	0.31687	0.76817	24.362	150	0.76817
155	0.00985	-0.08969	0.09023	83.733	155	0.91052	-0.02165	0.91078	358.638	155	0.91078
160	0.21112	-0.10153	0.23426	25.684	160	0.73453	-0.25433	0.77731	340.901	160	0.77731
165	0.46507	-0.07014	0.47033	8.576	165	0.26031	-0.28985	0.38959	311.926	165	0.38959
170	0.71159	-0.01005	0.71166	170	0.31790	-0.16443	0.35790	237.351	170	0.35790	
175	0.88934	-0.04696	0.89058	356.977	175	-0.77916	-0.01180	-0.01180	185.133	175	-0.01180
180	0.95394	-0.07015	0.95652	355.794	180	-0.95394	0.07015	0.95652	175.794	180	0.95652

KA = 7.8

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-1.1897	-1.98786	1.99142	266.575	0	-0.11897	-1.98786	1.99142	266.575
5	-0.17796	-1.97742	1.98541	264.857	5	-0.17655	-1.98614	1.99397	264.926
10	-0.35087	-1.93555	1.96709	259.725	10	-0.34775	-1.96927	1.99974	259.985
15	-0.62272	-1.83265	1.93556	251.233	15	-0.62511	-1.9C376	2.00376	251.822
20	-0.96055	-1.62718	1.88954	239.446	20	-0.98729	-1.73994	2.00053	246.428
25	-1.30572	-1.27960	1.82819	224.421	25	-1.30801	-1.42377	1.98839	225.729
30	-1.57213	-77367	1.75218	206.203	30	-1.74683	-91681	1.97281	207.692
35	-1.65837	-14100	1.66435	184.860	35	-1.95025	-22366	1.96313	186.542
40	-1.47895	-52240	1.56850	160.546	40	-1.87360	-58028	1.96141	162.792
45	-1.00989	-1.06378	1.46680	133.512	45	-1.42695	1.33632	1.95498	136.878
50	-0.32901	31804	1.35849	104.015	50	-0.61884	1.82561	1.92764	108.726
55	.37995	1.18286	1.24238	72.192	55	.39458	1.84048	1.88230	77.899
60	.88277	69127	1.12122	38.663	60	1.31572	1.29120	1.84345	44.461
65	1.00078	0.03099	1.00126	1.773	65	1.79757	29924	1.82231	9.451
70	.71453	-52378	.88594	323.757	70	1.60559	.79193	1.79027	333.746
75	.19268	-74820	.77261	284.441	75	.77269	-1.53371	1.71736	296.739
80	-0.29140	59165	.65952	243.778	80	-.35882	-1.58761	1.62765	257.265
85	-.51448	-20274	.55298	201.508	85	-1.27068	-.92599	1.57229	216.082
90	-0.42718	17128	.46224	158.152	90	-1.53131	118.03	1.53586	175.593
95	-0.15930	34215	.37741	114.966	95	-1.03835	1.01154	1.44961	135.749
100	0.09157	28195	.29645	72.007	100	-.08257	1.31413	1.31672	93.595
105	.19689	10272	.22207	27.553	105	.81782	.92254	1.23285	48.444
110	.15828	05179	.16654	341.883	110	1.21143	.11228	1.21662	5.295
115	.06445	-10730	.12517	300.989	115	.95251	-.64447	1.15005	325.917
120	0.0004	-68229	.08229	270.031	120	0.24695	-.95933	0.99061	284.435
125	-0.01343	03845	.04073	250.749	125	-.49897	-.73036	.88453	235.660
130	-0.00987	01733	.01995	240.349	130	-.91377	-.15869	.92745	189.852
135	-0.02911	01543	.03295	207.931	135	-.83864	.40346	.93064	154.309
140	-0.07529	00509	.07546	183.868	140	-.36735	.66280	.75779	118.997
145	-0.11238	02894	.11605	165.561	145	.24149	.53036	.58275	65.519
150	-0.09107	07070	.11529	142.180	150	.70798	13688	.72109	10.943
155	0.01844	08333	.08534	77.521	155	.85177	26788	.89290	342.542
160	.20935	03622	.21246	9.816	160	.64450	46234	.79318	324.345
165	.44225	-07196	.44807	350.759	165	.19215	36629	.41363	297.681
170	.66227	20857	.69434	342.519	170	-.32554	06804	.33257	191.806
175	.81783	32180	.87886	338.522	175	-.72484	23819	.76298	161.8.9
180	.87378	36561	.94718	337.294	180	-.87377	.36561	.94718	157.294

KA = 8.0

		T1			T2			
		REAL	IMAGINARY	MAGNITUDE	REAL	IMAGINARY	MAGNITUDE	
θ		ARGUMENT			θ	ARGUMENT		
0	*29372	-1.96738	1.98919	278.491	0	*29372	-1.96738	278.491
5	*23121	-1.96904	1.98257	276.697	5	*23206	-1.97738	276.693
10	*04591	-1.96239	1.96293	271.340	10	*04777	-1.99543	271.371
15	-.25221	-1.91408	1.93063	262.494	15	-.25442	-1.98638	262.701
20	-.63670	-1.77477	1.88553	250.265	20	-.65787	-1.89515	250.856
25	-1.05387	-1.492C9	1.82674	234.766	25	-1.12196	-1.65611	235.884
30	-1.41699	-1.03271	1.75338	216.085	30	-1.57000	-1.21248	217.678
35	-1.61472	-.41084	1.66617	194.275	35	-1.88565	-.54681	196.171
40	-1.54164	*28817	1.56834	169.412	40	-1.93009	*28380	171.635
45	-1.14863	*90796	1.66415	141.675	45	-1.58849	1.12511	144.690
50	-.49353	1.26250	1.35554	111.351	50	-.83985	1.7416	115.752
55	*24312	1.21718	1.24122	78.705	55	*17973	1.88597	84.556
60	*80859	*77606	1.12975	43.824	60	1.16917	1.42499	50.632
65	*99175	*11699	*99863	6.728	65	1.75071	*45019	14.421
70	*74472	-.47104	*88119	327.686	70	1.64494	-.68974	337.251
75	*22794	-.73442	*76898	287.243	75	*85108	-1.50649	299.464
80	-.27128	-.59955	.65807	245.654	80	-.29060	-1.61138	259.777
85	-.50813	-.21156	.55041	202.604	85	-.123368	-.95020	217.604
90	-.42205	*16960	*45485	158.108	90	-1.51264	*12837	175.149
95	-.14810	*34230	*37297	113.395	95	-1.01386	1.04743	134.067
100	*10407	*27660	*29553	69.381	100	-.04728	1.33121	92.034
105	*20082	*09210	*22093	24.637	105	*83977	*88059	46.359
110	*14976	-.06113	*16175	337.795	110	1.18750	*01375	*663
115	*04901	-.11067	*12104	293.685	115	*87538	-.74820	319.479
120	-.01327	-.08158	*08265	260.764	120	*15090	-.99989	1.01121
125	-.01965	-.03847	*04319	242.944	125	-.55541	-.66919	*86965
130	-.00967	-.01860	*02097	242.534	130	-.88775	-.01578	*88790
135	-.02462	-.01195	*02737	205.888	135	-.73615	*55733	*92332
140	-.06626	*01010	*06702	171.331	140	-.24483	*74416	*142.871
145	*09754	*05487	*11191	150.641	145	*30933	*48776	*78340
150	-.07354	*09356	*11901	128.169	150	*67396	-.02221	*67433
155	*02706	*07944	*08392	71.188	155	*72660	-.48011	*87089
160	*19088	-.01893	*19181	354.336	160	*49308	-.63746	*80591
165	*37975	-.19347	*42619	333.003	165	*09786	-.42686	*43794
170	*54959	-.39551	*67711	324.260	170	-.30788	*01783	*30840
175	*66518	-.55635	*86718	320.091	175	-.60045	*44468	*74662
180	*70589	-.61755	*93789	318.819	180	-.70589	*61755	*93789

T1		T2							
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	-69041	-1.87939	2.00219	290.171	0	.69041	-1.87939	2.00219	290.171
5	-62740	-1.89297	1.99423	288.337	5	.62856	-1.89919	2.00050	288.313
10	-43826	-1.92162	1.97096	282.848	10	.44177	-1.94773	1.99720	282.779
15	-12654	-1.92980	1.93395	273.752	15	.12921	-1.99174	1.99592	273.712
20	-29024	-1.86241	1.88489	261.142	20	.30074	-1.97516	1.99793	261.343
25	-76657	-1.65571	1.82456	245.157	25	.81646	-1.82434	1.99870	245.890
30	-1.21830	-1.25923	1.75226	225.942	30	-1.34726	-1.46493	1.99026	227.396
35	-1.52738	-0.66753	1.66688	203.607	35	-1.77501	-0.85435	1.96992	255.742
40	-1.56841	0.04085	1.56917	178.216	40	-1.94686	-0.02470	1.94702	186.727
45	-1.26500	.73459	1.46282	149.856	45	-1.72134	.88241	1.93434	152.859
50	-0.65037	1.18552	1.35220	118.749	50	-1.04526	1.61963	1.92763	122.837
55	-0.10312	1.23412	1.23862	85.223	55	-0.03143	1.90371	1.90397	90.946
60	.72698	.85164	1.11972	49.515	60	1.01810	1.54864	1.85332	56.678
65	.97666	.20134	.99720	11.648	65	1.69526	.60727	1.89074	19.749
70	.77229	-.41595	.87718	331.694	70	1.67425	-.57455	1.77039	341.060
75	.26285	-.71768	.76430	290.115	75	.91900	-1.47051	1.73436	302.003
80	-.25142	-.50554	.65566	247.452	80	-.23201	-1.63674	1.65310	261.932
85	-.50286	-.21974	.54877	203.604	85	-.20228	-.98476	1.55411	219.320
90	-.41831	1.6742	.45557	158.187	90	-1.49175	.12634	1.49709	175.159
95	-.13775	.34095	.36773	112.000	95	-.97888	1.07593	1.45459	132.296
100	.11651	.26940	.29352	66.613	100	.00105	1.34974	1.34974	89.955
105	.20534	.08062	.22060	21.436	105	.86763	.84914	1.21401	44.383
110	.14227	-.06926	.15821	334.343	110	1.15567	-.06802	1.15267	356.632
115	.03466	-.11098	.11626	287.345	115	.77935	-.83459	1.14190	313.040
120	-.02626	-.07745	.08178	251.269	120	.03725	-1.03058	1.03126	272.076
125	-.02707	-.03640	.04536	233.365	125	-.61399	-.61321	.86776	224.964
130	-.01177	-.02016	.02335	239.724	130	-.84266	.10479	.84915	172.911
135	-.02149	-.01136	.02439	207.853	135	-.60155	.67923	.90731	131.530
140	-.05517	-.02011	.05872	159.976	140	-.09592	.79988	.80561	96.838
145	-.07659	.07437	.10675	135.844	145	.37928	.44279	.58303	49.418
150	-.04884	.11139	.12163	113.678	150	.61076	-.15278	.62958	345.956
155	.03752	.07661	.08531	63.905	155	.55094	-.64128	.84544	315.667
160	.16136	-.06092	.17248	339.317	160	.29297	-.76136	.81578	291.047
165	.28784	-.28477	.40493	315.308	165	-.01647	-.46189	.46226	267.710
170	.38834	-.53399	.66227	306.026	170	-.27179	-.08806	.28570	162.048
175	.44952	-.72834	.85581	301.632	175	-.42186	-.59701	.73102	125.245
180	.46962	-.80160	.92903	300.364	180	-.46962	.80160	.92903	120.364

KA = 8.4

T1		T2							
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ				
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT					
0	1.04868	-1.71907	2.01369	301.384	0	1.04868	-1.71907	2.01369	301.384
5	.98869	-1.74458	2.00525	299.541	5	.99186	-1.74836	2.01008	299.565
10	.80585	-1.80899	1.98036	294.011	10	.81659	-1.82674	2.00095	294.086
15	.49579	-1.87585	1.94027	284.805	15	.51297	-1.92378	1.99100	284.936
20	.64667	-1.88598	1.88709	271.964	20	.07626	-1.98436	1.98582	272.201
25	-.45365	-1.76574	1.82319	255.591	25	-.47531	-1.92932	1.98701	256.160
30	-.98194	-1.44780	1.74958	235.854	30	-1.08015	-1.66888	237.088	
35	-1.39758	-.90533	1.66519	212.935	35	-1.61948	-1.13524		215.030
40	-1.55765	-.19029	1.56913	186.965	40	-1.92564	-.33193	1.95404	189.780
45	-1.35627	*54758	1.46264	158.014	45	-1.82801	-.61868	1.92986	161.302
50	-.79721	1.08926	1.34982	126.200	50	-1.23739	1.46516	1.91776	136.182
55	-.03891	1.23422	1.23484	91.805	55	-.23945	1.89037	1.90547	97.219
60	*63796	*91750	1.11749	55.188	60	*83497	1.65459	1.86704	62.461
65	.95515	*28301	.99619	16.505	65	1.63656	.76356	1.80592	25.012
70	.79723	-.35952	.87455	335.727	70	1.69991	-.44863	1.75811	345.216
75	.29792	-.69872	.75958	293.092	75	.98086	-.42230	1.72772	304.591
80	-.23100	-.60980	.65209	249.252	80	-.18316	-.65664	1.66673	263.691
85	-.49808	-.22682	.54729	204.484	85	-1.18152	-1.02321	1.56300	220.893
90	-.41592	*16558	.44767	158.292	90	-1.47617	*11388	1.48056	175.589
95	-.12887	*33884	.36252	110.823	95	-.93931	1.09297	1.44114	136.676
100	.12796	.26059	.29031	63.846	100	.06161	1.36169	1.36308	87.469
105	.20972	.06781	.22041	17.919	105	.90655	.82087	1.22297	42.160
110	.13577	-.07716	.15617	330.392	110	1.12474	-.13502	1.13282	353.154
115	.02221	-.10923	.11146	281.494	115	.67250	-.89870	1.12246	306.808
120	-.03762	-.07032	.07975	241.853	120	-.09102	-1.04232	1.04629	265.009
125	-.03456	-.03173	.04691	222.557	125	-.67911	-.55498	.87704	219.256
130	-.01590	-.02065	.02607	232.405	130	-.78911	*20372	.81498	165.524
135	-.02071	-.01223	.02405	210.571	135	-.44715	.76220	.88368	120.398
140	-.04419	.02533	.05093	150.182	140	.07172	.81957	.82271	84.999
145	-.05223	.08617	.10076	121.223	145	.45338	.38856	.59710	40.597
150	-.01888	.12166	.12312	98.820	150	.53117	-.25302	.58835	334.529
155	.05060	.07278	.08864	55.192	155	.34414	-.74093	.81695	294.914
160	.12633	-.08902	.15454	324.828	160	.66189	-.82053	.82286	274.313
165	.17832	-.34032	.38421	297.654	165	-.14923	-.46286	.48632	252.130
170	.19676	-.61302	.64382	287.795	170	-.22434	.14048	.26469	147.946
175	.19399	-.82245	.84502	283.271	175	-.20897	.68436	.71557	156.979
180	.18995	-.90082	.92063	281.907	180	-.18995	.90082	.92063	161.907

KA = 8.6

θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.35717	-1.48312	2.01036	312.461	0	1.35717	-1.48312	2.01036	312.461
5	1.30338	-1.52073	2.00285	310.599	5	1.30933	-1.52325	2.00864	310.681
10	1.13615	-1.62175	1.98012	305.014	10	1.15731	-1.63483	2.00361	305.295
15	.84242	-1.74973	1.94197	295.709	15	.88002	-1.78882	1.99356	296.195
20	.41522	-1.84280	1.88899	282.698	20	.45685	-1.93029	1.98361	283.315
25	-.12613	-1.81881	1.82318	266.033	25	-.11109	-1.97575	1.97888	266.782
30	-.71505	-1.59412	1.74715	245.841	30	-.77530	-1.82280	1.98084	246.958
35	-1.22898	-1.1934	1.66232	222.327	35	-.41977	-1.38100	1.98063	224.227
40	-1.50933	-.42449	1.56788	195.708	40	-.86356	-.62509	1.96560	198.543
45	-1.42006	.35077	1.46274	166.125	45	-.90536	.34627	1.93657	169.770
50	-.93117	.97611	1.34902	133.650	50	-.41541	.28481	1.91158	137.769
55	-.18107	1.21850	1.23188	98.453	55	-.44609	1.84569	1.89883	133.587
60	.54205	.97361	1.11433	60.893	60	.70737	1.73655	1.87509	67.837
65	.92678	.36142	.99475	21.304	65	1.57435	.91080	1.81883	36.050
70	.81897	-.30264	.87310	339.719	70	1.72517	-.31750	1.75414	349.572
75	.33305	-.67841	.75575	296.148	75	1.64220	-.36169	1.71476	307.429
80	-.20961	-.61289	.64774	251.119	80	-.13950	-.66549	1.67133	265.212
85	-.49310	-.23275	.54527	205.268	85	-.17096	-.05779	1.57800	222.093
90	-.41439	.16474	.44593	158.319	90	-.47035	.09640	1.47351	176.249
95	-.12144	.33687	.35809	109.823	95	-.90217	1.09821	1.42126	129.443
100	.13786	.25077	.28617	61.202	100	-.12900	1.36085	1.36695	84.585
105	.21312	.05364	.21976	14.128	105	-.95625	-.78721	1.23859	39.462
110	.12971	-.08559	.15541	326.581	110	1.10046	-.19298	1.11725	356.654
115	.01180	-.10659	.10724	276.317	115	.56400	-.93973	1.09599	306.971
120	-.04646	-.06113	.07679	232.764	120	-.22640	-.02825	1.05288	257.583
125	-.04087	-.02449	.04765	210.933	125	-.74993	-.48598	.89363	212.945
130	-.02116	-.01905	.02847	221.989	130	-.73490	.23572	.78849	158.754
135	-.02241	-.01299	.02590	210.998	135	-.28640	.80422	.85369	109.662
140	-.03492	-.02689	.04407	142.400	140	-.24609	-.79609	.83325	72.822
145	-.02728	.09602	.09407	106.860	145	.52898	.31770	.61706	35.989
150	.01355	.12269	.12343	83.697	150	.44585	-.32552	.55204	323.866
155	.06582	.06578	.09306	44.981	155	.12705	-.77519	.78553	279.358
160	.09050	-.10422	.13803	310.971	160	-.17857	-.80737	.82689	257.528
165	.06343	-.35841	.36398	280.036	165	-.28333	-.42368	.50969	236.227
170	-.00483	-.62753	.62755	269.559	170	-.17194	.17533	.24556	134.441
175	-.07487	-.83090	.83427	264.851	175	-.01578	-.73005	.70023	88.708
180	-.10423	-.90638	.91235	263.440	180	.10423	.90638	.91235	83.440

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.61283	-1.17798	1.99721	323.856	0	1.61283	-1.17798	1.99721	323.856
5	1.56750	-1.22743	1.99089	321.937	5	1.57554	-1.23017	1.99891	322.018
10	1.42282	-1.36464	1.97146	316.196	10	1.45206	-1.37790	2.00178	316.561
15	1.15723	-1.55422	1.93773	306.670	15	1.21199	-1.59204	2.00087	307.281
20	.75017	-1.73323	1.88861	293.404	20	.81968	-1.81690	1.99324	294.282
25	.20457	-1.81284	1.82434	276.438	25	.25748	-1.96553	1.98232	277.463
30	-1.42725	-1.69416	1.74721	255.846	30	-1.44395	-1.92554	1.97605	257.917
35	-1.02728	-1.30453	1.66045	231.781	35	-1.17788	-1.58687	1.97625	233.415
40	-1.42491	-1.64896	1.56573	204.486	40	-1.75556	-1.89636	1.97115	207.048
45	-1.45463	-1.47774	1.46212	174.201	45	-1.94629	-0.74111	1.94770	177.819
50	-1.04919	-1.64811	1.34911	141.050	50	-1.57516	1.08588	1.91318	145.419
55	-1.32082	1.18772	1.23028	105.116	55	-1.65250	1.77293	1.88919	111.256
60	1.4030	1.02006	1.11103	66.653	60	1.54033	1.79289	1.87254	73.229
65	.89126	.43635	.99234	26.386	65	1.50397	1.04379	1.83068	34.761
70	.83667	-.24571	.87200	343.634	70	1.74959	1.87077	1.75956	353.897
75	.36762	-.65735	.75316	299.216	75	1.10774	1.29212	1.70196	310.607
80	-.18722	-.61543	.64327	253.380	80	-.09391	1.66223	1.66488	266.767
85	-.48733	-.23787	.54228	206.018	85	-1.16565	-1.08330	1.59132	222.903
90	-.41289	.16508	.44467	158.268	90	-1.47488	.08031	1.47707	176.883
95	-.11496	.33570	.35484	108.993	95	-.87355	1.69534	1.40103	128.573
100	.14604	.24074	.28157	58.758	100	-.15513	1.34555	1.35963	81.748
105	.21479	.03854	.21822	10.171	105	1.01180	.74177	1.25457	36.246
110	.12320	-.09482	.15546	322.417	110	1.68462	-.24915	1.11287	347.063
115	.00299	-.10399	.10404	271.646	115	.46216	-.96134	1.06666	295.676
120	-.05242	-.05102	.07315	224.229	120	-.35859	-.98618	1.04935	250.018
125	-.04492	-.01533	.04747	198.848	125	-.82089	-.39967	.91301	205.960
130	-.02624	-.01494	.03020	209.655	130	-.68404	-.35764	152.398	240.719
135	-.02595	-.01230	.02872	205.356	135	-.13215	-.80853	1926	99.283
140	-.02823	-.02631	.03859	137.014	140	-.41252	.72761	.83642	62.449
145	-.00438	.08673	.08685	92.890	145	.54929	.22497	.64013	26.576
150	.04510	.17399	.12259	68.414	150	.36237	-.37582	.52207	313.956
155	.08167	.05396	.09783	33.455	155	.07986	-.74723	.75148	263.899
160	.05757	-.19875	.12314	297.895	160	-.40482	-.72195	.82771	240.719
165	-.04507	-.34117	.34413	262.475	165	-.40716	-.34248	.53204	220.069
170	-.19566	-.57914	.61130	251.333	170	-.19466	-.22858	121.655	121.655
175	-.32920	-.75479	.82345	246.436	175	.22919	.64536	.68485	76.448
180	-.38237	-.81917	.90402	244.978	180	.38237	.81917	.90402	64.978

KA = 9.0

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.81281	-0.82147	1.99025	335.622	0	1.81281	-0.82147	1.99025	335.622
5	1.77742	-0.88140	1.98396	333.624	5	1.78566	-0.88470	1.99280	333.644
10	1.66014	-1.05125	1.96499	327.657	10	1.69116	-1.06591	1.99905	327.778
15	1.43189	-1.29836	1.93289	317.800	15	1.49358	-1.33696	2.00456	318.167
20	1.05910	-1.56128	1.88661	304.151	20	1.14590	-1.64309	2.00320	304.892
25	.52737	-1.74723	1.82509	286.796	25	.61209	-1.89580	1.99216	287.893
30	-0.12823	-1.74405	1.74876	265.795	30	-0.09937	-1.97470	1.97720	267.119
35	-0.79901	-1.45556	1.66044	241.236	35	-0.89920	-1.75128	1.96864	242.822
40	-1.30700	-0.85869	1.56384	213.304	40	-1.59943	-1.14381	1.96634	215.570
45	-1.45919	-0.05807	1.46035	182.279	45	-1.94432	-1.19415	1.95399	185.702
50	-1.14870	.70684	1.34875	148.394	50	-1.71072	.87384	1.92098	152.942
55	-.45558	1.14220	1.22970	111.745	55	-.85708	1.67789	1.88412	117.058
60	.33412	1.05680	1.10836	72.455	60	.36058	1.82727	1.86251	78.837
65	.84869	.50790	.98905	30.898	65	1.42003	1.16210	1.83493	39.296
70	.84965	-.18856	.87032	347.487	70	1.76989	-.06176	1.77097	358.001
75	.40090	-.63564	.75151	302.239	75	1.17902	-1.21960	1.69632	314.031
80	-.16415	-.61792	.63935	255.123	80	-.04062	-.65080	1.65130	268.590
85	-.48049	-.24283	.53836	206.811	85	-.15917	-1.09889	1.59726	223.471
90	-.41075	1.6625	.44312	157.965	90	-1.48686	.07109	1.48856	177.262
95	-.10873	.33554	.35271	107.955	95	-.85625	1.09107	1.38694	128.124
100	.15278	.23118	.27710	56.541	100	.25290	1.31923	1.34325	79.148
105	.21435	.02328	.21562	6.199	105	1.0604	.68222	1.26565	32.617
110	.11542	-.10450	.15570	317.843	110	1.07501	-.31045	1.11895	343.892
115	-.00497	-.10192	.10204	267.210	115	.37200	-.97079	1.03963	290.966
120	-.05565	-.04112	.06919	216.462	120	-.47778	-.91934	1.03608	242.539
125	-.04604	-.00536	.04635	186.640	125	-.88378	-.29329	.93118	198.359
130	-.02989	-.00868	.03113	196.197	130	-.63638	.42672	.76620	146.157
135	-.03024	-.00938	.03166	197.235	135	.00594	.78298	.78300	89.565
140	-.02425	.02521	.03498	133.887	140	.55672	.61848	.83214	48.CJ8
145	.01449	.07800	.07934	79.473	145	.65506	.10879	.66403	9.43C
150	.07254	.09647	.12070	53.060	150	.28452	-.41100	.49987	304.693
155	.09594	.03657	.10268	20.864	155	-.25938	-.66677	.71545	248.743
160	.02981	-.10565	.1C978	285.754	160	-.59470	-.57256	.82553	223.913
165	-.13729	-.29431	.32476	244.992	165	-.50659	-.22252	.55331	253.714
170	-.35712	-.47618	.59521	233.132	170	-.07141	.20190	.21415	109.479
175	-.54340	-.60435	.81273	228.040	175	.41026	.52914	.66956	52.212
180	-.61622	-.65015	.89578	226.535	180	.61622	.65015	.89578	46.535

KA = 9.02

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.94866	-43665	1.99698	347.370	0	1.94866	-43665	1.99698	347.370
5	1.92452	-50440	1.98952	345.314	5	1.93136	-50710	1.99682	345.288
10	1.83903	-69975	1.96766	339.168	10	1.86630	-71200	1.99750	339.118
15	1.65667	-99512	1.93257	329.008	15	1.71570	-0.02840	2.00031	329.061
20	1.33177	-33396	1.88496	314.953	20	1.42462	-1.40735	2.00254	315.349
25	0.83218	-62343	1.82430	297.140	25	0.94005	-1.76260	1.99762	298.072
30	0.17313	-1.74097	1.74956	275.679	30	0.24566	-1.96727	1.98255	277.118
35	-0.55064	-1.56741	1.66131	250.643	35	-0.59359	-1.87346	1.96525	252.420
40	-1.15891	-1.04859	1.56289	222.139	40	-1.39934	-1.36788	1.95685	224.349
45	-1.43406	-26311	1.45799	190.397	45	-1.89738	-0.45794	1.95186	193.569
50	-1.22807	-55384	1.34718	155.725	50	-1.81622	-0.65195	1.92969	160.254
55	-0.58324	1.08203	1.22921	118.326	55	-1.05435	1.56622	1.88804	123.948
60	0.22508	1.08354	1.10667	78.265	60	0.16968	1.84553	1.85332	84.747
65	0.79967	0.57614	0.98560	35.772	65	1.31966	1.26878	1.83065	43.874
70	0.85774	-1.13077	-0.86765	351.332	70	1.78131	0.56668	1.78221	1.823
75	0.43232	-61300	-0.75011	305.193	75	1.25321	-1.14991	1.70083	317.461
80	-0.14096	-62059	-0.63639	257.203	80	0.02185	-1.63763	1.63777	270.764
85	-0.47281	-24827	-0.53402	207.704	85	-1.14638	-1.10741	1.59391	224.009
90	-0.40769	-16758	-0.44079	157.654	90	-1.50085	0.7163	1.50256	177.268
95	-0.10212	-33617	-0.35133	106.898	95	-0.84834	1.09237	1.38310	127.833
100	0.15865	-22253	-0.27330	54.514	100	0.29888	1.28841	1.32262	76.940
105	0.21195	-00873	-0.21213	2.358	105	1.11210	0.61019	1.26850	28.753
110	0.10595	-11395	-0.15560	312.917	110	1.06601	-0.38149	1.13221	340.309
115	-0.01284	-10037	-0.10119	262.710	115	0.29367	-0.97638	1.01958	286.740
120	-0.05679	-0.03229	.06533	209.621	120	-0.57733	-0.83478	1.01497	235.332
125	-0.04422	-0.00416	.04441	174.620	125	-0.92982	-0.16826	0.94492	190.257
130	-0.03123	-0.01114	.03125	182.083	130	-0.58780	0.49854	0.77075	139.697
135	-0.03401	-0.00406	.03425	186.813	135	0.12316	0.73766	0.74787	80.521
140	-0.02236	-0.02497	.02351	131.849	140	0.66742	0.47788	0.82086	35.603
145	.02832	.06598	.07180	66.772	145	0.68636	-0.02821	0.68694	357.646
150	.09328	.07206	.11787	37.685	150	0.21200	-0.43779	0.48642	295.838
155	.10626	.01385	.10716	7.425	155	-0.39975	-0.54782	0.67817	233.882
160	.00799	-C9813	.09846	274.657	160	-0.73045	-0.37404	0.82065	207.116
165	-20635	-22591	.30597	227.590	165	-0.56899	-0.07179	0.57350	187.192
170	-47494	-33194	.57945	214.950	170	-0.02831	0.20070	0.20269	98.028
175	-69721	-39700	.80232	209.658	175	.54266	.36598	0.65454	33.996
180	-78320	-41827	.88789	208.105	180	.78320	.41827	.88789	28.105

KA = 9.4

T1				T2					
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	2.00780	-0.04327	2.00826	358.765	0	2.00780	-0.04327	2.00826	358.765
5	1.99650	-0.11548	1.99984	356.690	5	2.00180	-0.11585	2.00515	356.688
10	1.94795	-0.32707	1.97521	350.469	10	1.97059	-0.33106	1.99821	350.463
15	1.82093	-0.65793	1.93614	340.134	15	1.87472	-0.67618	1.99294	340.166
20	1.55832	-1.06022	1.88479	325.770	20	1.65232	-1.11419	1.99288	326.007
25	1.10992	-1.44540	1.82239	307.521	25	1.23456	-1.56613	1.99421	308.248
30	0.46887	-1.68435	1.74839	285.556	30	0.58009	-1.90099	1.98753	286.970
35	-0.28834	-1.63634	1.66155	260.006	35	-0.27375	-1.95072	1.96983	262.012
40	-0.98438	-1.21384	1.56282	230.959	40	-1.16494	-1.56666	1.95231	233.366
45	-1.38044	-0.46341	1.45615	198.557	45	-1.80823	-0.71617	1.94490	201.607
50	-1.28661	0.39114	1.34475	163.090	50	-1.88729	0.42146	1.93377	167.412
55	-0.70222	1.00749	1.22806	124.877	55	-1.23649	1.44048	1.89839	130.642
60	0.11466	1.09979	1.10575	84.048	60	-0.02639	1.85161	1.85180	90.817
65	0.74518	0.64082	0.98282	40.694	65	1.20340	1.36765	1.82171	48.655
70	0.86127	-0.07206	0.86428	355.217	70	1.77933	0.16964	1.78740	5.446
75	0.46167	-0.58898	0.74836	308.391	75	1.32442	-0.08559	1.71248	320.659
80	-0.11820	-0.62330	0.63441	259.262	80	0.09065	-1.62810	1.63062	273.187
85	-0.46483	-0.25453	0.52996	208.704	85	-1.12488	-1.11372	1.58295	224.714
90	-0.40385	0.16848	0.43759	157.355	90	-1.51065	0.08167	1.51283	176.928
95	-0.09475	0.33713	0.35019	105.697	95	-0.84417	1.10342	1.38930	127.418
100	0.16435	0.21483	0.27049	52.584	100	0.33393	1.25979	1.30330	75.154
105	0.20813	-0.00452	0.20818	358.755	105	1.14500	0.53046	1.26191	24.858
110	0.09480	-0.12238	0.15480	307.763	110	1.05020	-0.46291	1.14769	336.213
115	-0.02125	-0.09898	0.10124	257.881	115	0.22300	-0.98440	1.00934	282.764
120	-0.05678	-0.02495	0.06202	203.721	120	-0.65465	-0.74105	0.98880	228.542
125	-0.04060	0.01218	0.04182	163.064	125	-0.95135	-0.29999	0.95183	181.805
130	-0.02991	0.00659	0.03062	167.579	130	-0.53159	0.57514	0.78318	132.747
135	-0.03605	0.00323	0.03620	174.878	135	0.21964	0.68214	0.71663	72.152
140	-0.02143	0.02640	0.03400	129.064	140	0.73751	0.31796	0.80313	23.322
145	0.03702	0.05280	0.06448	54.965	145	0.68420	-0.17916	0.70727	345.327
150	0.10565	0.04338	0.11421	22.323	150	0.14138	-0.46062	0.48182	287.063
155	0.11035	-0.01294	0.11111	353.312	155	-0.49505	-0.4C595	-0.64021	219.353
160	-0.00837	-0.08888	0.08927	264.622	160	-0.79999	-0.14570	-0.81315	190.322
165	-0.24855	-0.14500	0.28775	210.259	165	-0.58442	0.9764	-0.59252	170.515
170	-0.53999	-0.16275	0.56398	196.772	170	0.0975	0.19449	0.19449	87.127
175	-0.77690	-0.15487	0.79219	191.274	175	0.61565	0.17403	0.63978	15.784
180	-0.86779	-0.14790	0.88030	189.672	180	0.86779	0.14790	0.88030	9.672

KA = 9.6

T1						T2					
REAL			IMAGINARY			MAGNITUDE			ARGUMENT		
θ			θ			θ			θ		
0	1.98046	-34622	2.01050	9.916	0	1.98046	-34622	2.01050	9.916	-2.00773	7.890
5	1.98378	-27280	2.00245	7.830	5	1.98872	-27561	2.00017	1.762	-0.06149	1.90097
10	1.97764	-05417	1.97839	1.569	10	1.99922	-0.06149	2.00017	1.90097	-0.29624	351.443
15	1.91575	-29879	1.93891	351.135	15	1.96881	-0.29624	1.98565	336.973	-0.77672	1.98699
20	1.73009	-75004	1.88567	336.562	20	1.82744	-0.77672	1.98699	318.626	-1.31335	1.98699
25	1.35219	-1.21964	1.82197	317.950	25	1.49106	-1.31335	1.98699	318.626	-0.98699	1.98699
30	-0.01836	-1.66045	-1.66055	295.483	30	0.89486	-1.77568	1.98843	296.746	-0.04829	-1.97775
35	-0.78747	-1.35014	-1.56300	239.747	35	-0.04829	-1.97775	1.97834	271.399	-0.90712	-1.73382
40	-1.29999	-65454	-45548	206.725	40	-1.68237	-1.73382	1.95678	242.382	-1.68237	-0.96506
45	-1.32410	-22152	-34250	170.502	45	-1.92224	-0.96506	1.92951	269.840	-1.92224	-1.8258
50	-0.81137	-91928	-22613	131.432	50	-1.39670	-1.8258	1.93089	174.574	-1.39670	-1.29920
55	-0.45718	-26153	-52670	209.772	55	-1.22037	-1.29920	1.90753	137.071	-1.22037	-0.88500
60	0.00413	1.10498	1.10499	89.786	60	1.84539	1.85850	1.85850	96.810	1.46138	1.81392
65	0.68616	70122	98108	45.622	65	1.37457	1.46138	1.53673	53.673	1.76169	1.78398
70	0.86080	-0.01259	86089	359.162	70	1.76169	1.28109	1.78398	9.069	1.38685	1.74432
75	0.48904	-56321	74590	310.968	75	-1.02466	1.74432	1.723541	323.541	1.60688	1.63235
80	-0.09626	-62560	63296	261.253	80	-1.62440	1.63235	1.775649	275.649	-1.09537	-1.12309
85	-0.45718	-26153	-52670	209.772	85	-1.12309	1.56381	1.56381	225.716	-0.99744	-0.99744
90	-0.39970	-16859	-43380	157.130	90	-1.51182	-0.94889	1.51480	176.409	-1.51182	-0.94889
95	-0.08654	-33785	-34876	104.368	95	-0.33709	1.12399	1.40145	126.577	-0.33709	1.12399
100	0.17046	-20772	-26870	50.627	100	0.36208	1.23813	1.28999	73.649	0.16292	1.23813
105	0.20362	-0.01631	20428	355.421	105	1.16292	0.44972	1.24685	21.142	1.02104	-0.55094
110	0.08235	-12914	15316	322.527	110	1.02104	1.16020	1.16020	331.649	0.15359	-0.99744
115	-0.03051	-0.09711	10179	252.557	115	-0.99744	1.03920	1.03920	278.754	-0.99744	-0.99744
120	-0.05650	-0.01897	0.05959	198.557	120	-0.71105	-0.64636	0.64636	222.271	-0.71105	-0.64636
125	-0.03431	-0.01806	0.03877	152.237	125	-0.94367	-0.11287	0.11287	173.186	-0.94367	-0.11287
130	-0.02607	-0.01335	0.02929	152.879	130	-4.6082	-0.65408	0.65408	125.156	-0.27004	-0.62365
135	-0.03553	-0.01156	0.03736	161.980	135	0.29901	0.69163	0.69163	64.385	0.02964	0.15220
140	-0.02016	-0.02964	0.03584	124.219	140	0.76461	0.77963	0.77963	11.264	0.64238	-0.33323
145	-0.04125	-0.04023	0.05762	44.281	145	-0.64238	0.72367	0.72367	332.582	-0.64238	-0.64238
150	0.10895	-0.01342	0.10978	7.322	150	0.06785	-0.48057	0.48534	278.036	-0.06785	-0.48057
155	0.10655	-0.04159	-11438	338.679	155	-0.54469	-0.25648	-0.25648	255.214	-0.79783	-0.25648
160	-0.02057	-0.07975	-0.8236	255.540	160	-0.54702	-0.9035	-0.9035	173.539	-0.6076	-0.9035
165	-0.26312	-0.06076	-27004	193.034	165	-0.54702	-0.27030	-0.27030	153.705	-0.1346	-0.27030
170	-0.54851	-0.01346	0.54868	178.595	170	0.04405	0.18456	0.18456	76.576	0.62453	-0.02647
175	-0.77612	-0.09688	0.78214	172.885	175	0.62453	-0.02647	-0.02647	357.573	-0.62509	-0.02647
180	-0.86261	-0.13302	0.87281	171.234	180	0.86261	-0.13302	-0.13302	351.234	-0.87281	-0.13302

KA = 9.8

T1		T2						
θ	REAL	IMAGINARY	MAGNITUDE	ARGUMENT				
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.86628	.72389	2.00175	21.200	0	1.86628	.72389	2.00175
5	1.88540	.65192	1.99493	19.074	5	1.89125	.65714	2.00217
10	1.92565	.43409	1.97397	12.703	10	1.95015	.45052	2.00151
15	1.93658	.07132	1.93789	2.109	15	1.99454	.09230	1.99667
20	1.84043	-.41414	1.88645	347.318	20	1.94524	-.41337	1.98868
25	1.55098	-.95453	1.82118	328.390	25	1.70355	-1.01645	1.98375
30	1.01226	-1.42116	1.74482	305.461	30	1.18264	-1.59406	1.98485
35	.25257	-1.63959	1.65893	278.757	35	.36423	-1.94901	1.98275
40	-.57247	-1.45404	1.56267	248.510	40	-.63388	-1.86050	1.96552
45	-1.19439	-.83202	1.45562	214.861	45	-1.52545	-1.19824	1.93979
50	-1.34030	-.04833	1.34117	177.935	50	-1.92265	-.06387	1.92371
55	-.90971	.81860	1.22379	138.018	55	-1.53222	1.13897	1.90918
60	-.10560	1.09863	1.10369	95.491	60	-.40696	1.82354	1.86840
65	.62322	.75639	.98007	50.514	65	.93789	1.55048	1.81207
70	.85678	.04716	.85807	3.151	70	1.72984	.39550	1.77448
75	.51475	-.53548	.74277	313.869	75	1.43785	-.96217	1.73008
80	-.07511	-.62694	.63142	263.168	80	.22700	-1.62532	1.64110
85	-.45022	-.26881	.52437	210.840	85	-.1.06152	-1.13939	1.55726
90	-.39573	.16787	.42986	157.913	90	-.1.50380	.10678	1.50758
95	-.07778	.33781	.34665	102.966	95	-.82227	1.15023	1.41392
100	.17719	.20057	.26762	48.542	100	.38902	1.22523	1.28551
105	.19907	-.02684	.20387	352.321	105	1.16804	.37461	1.22665
110	.06926	-.13385	.15971	297.358	110	.97531	-.63884	1.16591
115	-.04048	-.09401	.10235	246.705	115	.07913	-1.01421	1.01729
120	-.05657	-.01382	.05823	193.728	120	-.75124	-.55698	.93520
125	-.02814	.02164	.03550	142.434	125	-.90652	.25019	.94041
130	-.02037	.01822	.02732	138.189	130	-.37074	.72923	.81807
135	-.03214	.01967	.03768	148.530	135	.36691	.56624	.67472
140	-.01744	.03417	.03836	117.036	140	.75146	-.00599	.75148
145	.04219	.02951	.05149	34.969	145	.55931	-.47718	.73520
150	.10361	-.01483	.10467	351.853	150	-.01295	-.49545	.49562
155	.09415	-.06926	.11688	323.660	155	-.55297	-.11297	.56439
160	-.02034	-.07166	.07778	247.121	160	-.72607	.31136	.79002
165	-.25215	.01830	.25281	175.849	165	-.45647	.42878	.62627
170	-.50265	.17869	.53346	160.430	170	.07629	.17233	.18846
175	-.69688	.33236	.77208	154.502	175	.57130	-.21502	.61042
180	-.76962	.39551	.86529	152.801	180	-.76961	-.39551	.86529

KA =10.0

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.67498	1.08000	1.99298	32.813
5	1.70986	1.01173	1.98676	30.613
10	1.79703	-0.80161	1.96771	24.041
15	1.88384	-0.44062	1.93468	13.164
20	1.88523	-0.06385	1.88631	358.060
25	1.69897	-0.65931	1.82242	338.790
30	1.24340	-1.22448	1.74510	315.439
35	0.51717	-1.57493	1.65766	288.179
40	-0.36399	-1.52313	1.56149	257.274
45	-1.06529	-0.99168	1.45556	222.956
50	-1.33485	-0.12503	1.34069	165.351
55	-0.99626	.70705	1.22166	144.637
60	-0.21392	1.08062	1.10159	101.198
65	-0.55658	-0.80547	0.97907	55.356
70	-0.84940	-0.10650	0.85605	7.147
75	-0.53918	-0.50589	0.73936	316.824
80	-0.05441	-0.62693	0.62928	265.040
85	-0.44397	-0.27588	0.52270	211.856
90	-0.39237	0.16657	0.42626	156.998
95	-0.06897	0.33679	0.36377	101.574
100	-0.18435	-0.19282	0.26677	46.286
105	-0.19483	-0.03659	0.19824	349.364
110	-0.05625	-0.13650	0.14764	292.396
115	-0.05061	-0.08917	0.10253	240.422
120	-0.05718	-0.05882	0.05785	188.772
125	-0.02241	-0.02322	0.03227	133.978
130	-0.01381	-0.02066	0.02485	123.758
135	-0.02621	-0.02638	0.03718	134.820
140	-0.01257	-0.03905	0.04103	107.848
145	-0.04130	-0.02122	0.04643	27.190
150	0.09108	-0.03888	0.0903	336.884
155	0.07360	-0.09300	-0.11860	308.358
160	-0.03899	-0.06462	0.07547	238.897
165	-0.22017	-0.08532	-0.23612	158.816
170	-0.41013	-0.31713	-0.51844	142.287
175	-0.54947	-0.52813	-0.76213	136.135
180	-0.60007	-0.61312	-0.85790	134.384

	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
	REAL	IMAGINARY	MAGNITUDE	ARGUMENT
0	1.67498	1.08000	1.67498	1.08000
5	1.70986	1.01173	1.71667	1.01760
10	1.79703	-0.80161	1.82464	0.82157
15	1.88384	-0.44062	1.94695	0.47205
20	1.88523	-0.06385	1.99729	0.04171
25	1.69897	-0.65931	1.86365	-0.68896
30	1.24340	-1.22448	1.43710	-1.36219
35	0.51717	-1.57493	0.66959	-1.86249
40	-0.36399	-1.52313	-0.34928	-1.93950
45	-1.06529	-0.99168	-1.34190	-1.40828
50	-1.33485	-0.12503	-1.34069	-1.89245
55	-0.99626	.70705	-1.22166	-1.64464
60	-0.21392	1.08062	-1.10159	-1.58421
65	-0.55658	-0.80547	-0.97907	-1.63289
70	-0.84940	-0.10650	-0.85605	-1.68839
75	-0.53918	-0.50589	-0.73936	-1.47878
80	-0.05441	-0.62693	-0.62928	-0.28653
85	-0.44397	-0.27588	-0.52270	-1.02872
90	-0.39237	0.16657	-0.42626	-1.49001
95	-0.06897	0.33679	-0.36377	-1.79816
100	-0.18435	-0.19282	-0.26677	-1.42045
105	-0.19483	-0.03659	-0.19824	-1.16584
110	-0.05625	-0.13650	-0.14764	-0.91394
115	-0.05061	-0.08917	-0.10253	-0.0486
120	-0.05718	-0.05882	-0.05785	-1.78199
125	-0.02241	-0.02322	-0.03227	-1.64418
130	-0.01381	-0.02066	-0.02485	-1.26015
135	-0.02621	-0.02638	-0.03718	-1.35
140	-0.01257	-0.03905	-0.04103	-1.07848
145	-0.04130	-0.02122	-0.04643	-1.43871
150	0.09108	-0.03888	0.0903	150
155	0.07360	-0.09300	-0.11860	155
160	-0.03899	-0.06462	0.07547	160
165	-0.22017	-0.08532	-0.23612	165
170	-0.41013	-0.31713	-0.51844	170
175	-0.54947	-0.52813	-0.76213	175
180	-0.60007	-0.61312	-0.85790	180

32.813

30.658

24.240

13.629

358.804

339.711

316.533

289.774

259.791

226.383

169.437

149.778

108.151

63.953

16.965

328.866

279.986

228.518

175.709

124.150

70.978

14.856

348.269

306.277

211.315

156.159

108.173

49.917

19054

55.490

321.200

314.384